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Makes New Move in World Game

**England Is Now Selling Ships to Germany—America
Handicapped by Federal Extravagance in Marine Race**

ONE dollar out of every \$8 turned over last year by American citizens to support the federal government, went to maintain the great national marine venture. Aside from the direct corporation and individual taxes of rather poignant memory to most citizens, this ratio of one to eight holds good for the innumerable indirect taxes which are still being collected. More general realization of the stupendous cost of this marine crusade would arouse that degree of "ship mindedness" which has been regarded as so essential.

Washington, on the surface at least, is showing a realization of the outrageous cost of keeping up the \$3,000,000,000 marine gamble. President Harding has made his position emphatically clear on the need for bringing government expenditures more in line with the common-sense view of what the cost of being governed should be. The selections for the new shipping board were quite apparently made with the thought of obtaining a group of men experienced in business. Their work, as cut out for them by the President, is to curtail immediately the outflow of public funds, to instill sufficient business management in the shipping board that the inexcusable wastage of money will be stopped and to insure the permanent removal of this colossal financial loss by going out of the shipping business.

New Board Has Proper Course Charted

Early signs point to the sincerity of the efforts to carry out this policy. The new board members, particularly Chairman Lasker, are working hard; they are out to sell the wooden ships at any figure; they are apparently committed to a policy of getting rid of the steel ships at a low price, giving recognition to what shipping people have urged since the armistice that the excessive cost of the war-built vessels be written off as a direct war charge. In addition, the most hopeful sign for the work of the new board is the agreement with President Harding that all questions of war claims be

handled by a separate body, permitting the board to occupy itself solely with the problem of getting itself out of business. Too much time was devoted by the previous board to considering financial claims, with the inevitable result that the broader problems of policy and business efficiency could be studied only at odd times instead of being made the first order of business every day.

Students of economics, who have lately made a tour of the British Isles and Germany with unusual facilities for study and observation offered in both countries, return convinced that the radical reversal of the shipping board's policies begun with the selection of the new board, comes none too soon. Marine enterprise, unstifled by government competition, is on the move in both countries.

English Now Willing To Aid Germans

An unexpected result of the marine depression of the past months, has been the growth in England of a spirit of willingness to help the Germans to recover their marine strength. This feeling comes directly from an appreciation of the Teutonic problem of paying off war debts. A nation, forced to work off a debt running into trillions of dollars, has first call on the rest of the world, in the judgment of many English shipping men. Success in paying this debt will prove a stimulus to every other nation. This feeling has led the English to consent willingly to the sale of vessels to Germany. The defeated Teutons are today the only prospective buyers of large tonnages of ships.

America's great adventure into the shipping field reveals more clearly each day the fact that building up a merchant marine is not a problem to be solved solely along national lines. With world trade as the prize, world conditions must be recognized and met. America has been supremely successful in domestic business. This success makes for confidence when seeking export trade and marine independence but does not guarantee results.

Who Is Who In New Ship Board

Headed by Business Leader, Board Includes Editors,
Lawyers, Naval Officer and Labor Representative

BY E. C. BOEHRINGER

HAVING declared that the shipping board muddle is "the most colossal commercial wreck the world ever knew", Albert D. Lasker, as chairman of the new board, thereby definitely aligns himself as the chief of the greatest wrecking crew on record. Chairman Lasker has no illusions concerning his task—a fact that may save him many a trying hour—and so is vigorously attacking his problem, which is one of disentangling rather than one of upbuilding.

Neither President Harding, who delights in referring to Mr. Lasker as a "live wire", nor Mr. Lasker himself mince any words as to the Lasker insight into shipping. Admittedly, he has none. But as the President has repeatedly stated, the salving of the government's billions in war-built shipping requires not a pair of sea legs but rather a headful of good, hard, business brains.

Mr. Lasker was born in Galveston, Tex., in 1880. When only 10 years old, he began turning out a newspaper, for which a tablet was the paper and his pencil the type. At 14, he was actually printing a paper that carried advertisements. A year later he began sending Galveston news to eastern and southern newspapers, and at the close of his high-school career went on the staff of the *Galveston News* and later the *Evening Tribune*.

Early in his son's career, Mr. Lasker senior made the acquaintance of the Mr. Lord who was then the head of the Lord & Thomas advertising agency of Chicago. Mr. Lasker senior did a good turn for Mr. Lord; Mr. Lord said some day he would attempt to reciprocate. Seeing that his son was determined to follow a newspaper career, Mr. Lasker senior sounded out Mr. Lord on the proposition of taking his son into the advertising agency. At 18 then, Mr. Lasker began at the foot of the advertising ladder, for \$10 a week. Today, at 41, Mr. Lasker is the sole owner of this agency.

Commercially, Mr. Lasker's ventures took him into the field of salving business as well as promoting it. His interests today include Quaker Oats, Mitchell automobiles, Van Camp products and the Chicago national league baseball club. Politically, Mr. Lasker made his debut in 1918 when Will H. Hays, now postmaster general, asked

him to handle the publicity for the 1918 congressional campaign—the campaign that restored both the house and the senate to the Republican party and was the entering wedge for the defeat of the Wilson peace proposal in the senate. The Harding campaign of 1920 again found Mr. Lasker at the head of the general staff, and here the President made the acquaintance of his present shipping board chairman.

Mr. Lasker represents the interior on the shipping board, is a Republican,



ALBERT D. LASKER

and has the longest term—six years. He is married and has three children. An uncle of Mr. Lasker was the founder of the Liberal party in Germany. His father came to the United States from Germany in 1858 and fought with Texas troops in the Civil war. Incidentally, he was the first man to introduce the 8-hour day in the southwest. Four sisters of Mr. Lasker are active in social or allied work.

T. V. O'Connor

GREAT LAKES representative on the board, T. V. O'Connor, is also the only outright spokesman for labor. Born in Buffalo 51 years ago, Mr. O'Connor began life in the exemplary way of being a newsboy and bootblack. From this humble but auspicious beginning, Mr. O'Connor embarked upon the ferry business in

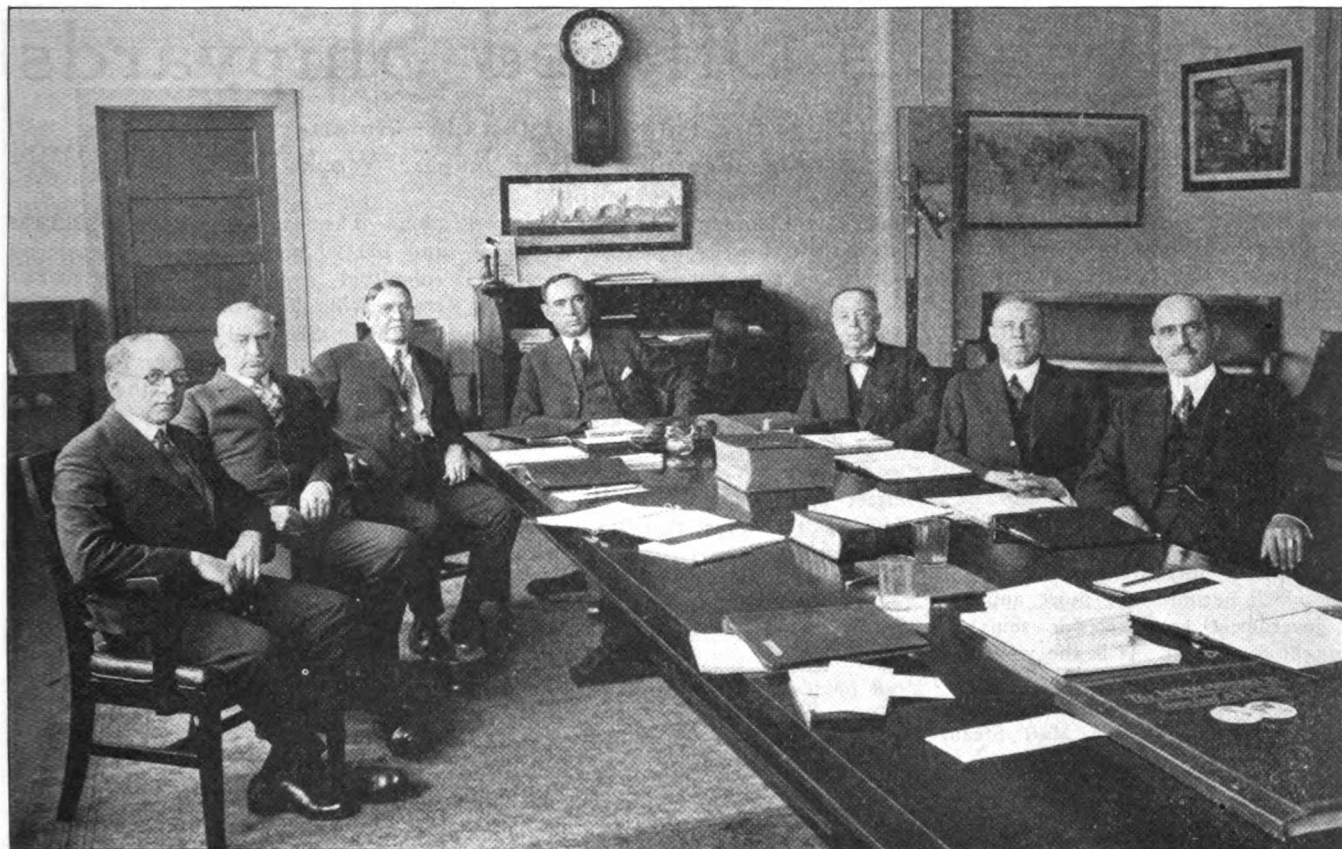
Buffalo harbor, then went as a deck-hand on tugboats and ultimately became captain. His labor career began when he started representing the tugmen, and he soon found himself president of the Buffalo local of the licensed tugmen's protective association. In 1907 he became vice president of the International Longshoremen's association, and two years later was made president, a post he relinquished only on June 15, 1921, a week after his appointment to the shipping board. In the war period, Mr. O'Connor mobilized the regiments of longshoremen which handled the army's transports here and abroad. Mr. O'Connor, a Republican, has a 5-year term.

W. S. Benson

ADMIRAL W. S. BENSON is one of the two members of the present shipping board to hold over. Placed on the old board by President Wilson in February, 1920, he was made chairman in the following month and retained this post until the present board was selected by President Harding on June 8 and confirmed the following day. He is a Democrat, representing the Atlantic coast, and is holding down a 1-year term. Admiral Benson was born in Macon, Ga., Sept. 25, 1855. Following his graduation from the naval academy at Annapolis in 1877, he served under Commander W. S. Schley—later to gain fame in the Spanish-American war—and rose to the rank of rear admiral in 1915. During the war, he served as chief of naval operations, and made many trips to Europe during and after the war to confer with the allied naval chiefs. Admiral Benson was retired on Sept. 25, 1919, and later became involved in the controversy with Admiral Sims.

Edward C. Plummer

THE Plummer family of New England has the unique distinction that since it was founded in Massachusetts in 1663 that branch of the family represented on the shipping board by Edward C. Plummer, Bath, Me., has never lived more than 10 miles from the ocean. Mr. Plummer, an admiralty lawyer, was born in Freeport, Me., on Nov. 23, 1863, and was graduated from Bowdoin college in 1887. Entering newspaper work, in 1892, Mr. Plummer became the owner of the Bath *Independent*. Shortly thereafter he visited



FIRST MEETING OF NEW SHIPPING BOARD

New members of the United States shipping board photographed at their first meeting in the board's conference room, new navy building, Washington. From left to right, around the table, they are: Meyer Lissner, Admiral W. S. Benson, former chairman; T. V. O'Connor; A. D. Lasker, chairman; George E. Chamberlain; F. I. Thompson and E. C. Plummer

England to study world shipping conditions, and in 1900, when the Atlantic Carriers' association was formed, he was made executive official of the association, a post he has held ever since. In 1898, when the Spanish-American war broke out, Mr. Plummer retired from the newspaper field and became a paymaster in the navy. Since that war he has been in admiralty practice, spending his winters in Washington. He is a Republican, represents the Atlantic coast, and is serving a 3-year term.

Meyer Lissner

PRACTICALLY every good-government movement in Los Angeles and southern California in the past 20 years has found Meyer Lissner in the forefront. This work has gone hand-in-hand with his practice of law, and has kept him more or less in the political arena. In the course of his law career, Mr. Lissner, who was born in San Francisco, June 16, 1871, has been president of the Los Angeles board of public utilities—from 1909 to 1911—and from 1915 to 1919 he was a member of the California industrial accident commission. The editorship of the *California Outlook* took much of his time between 1914 and 1917. For several years he also was chairman of the Republican state central commit-

tee. Mr. Lissner is a Republican and Pacific coast member of the shipping board. His is a 1-year term, expiring June 8, 1922.

George E. Chamberlain

GEORGE E. CHAMBERLAIN, Portland, Oreg., had been senator from Oregon 12 years when placed on the shipping board by President Harding, and is probably closer to the President than any other man now on the board. Senator Chamberlain was born in Natchez, Miss., Jan. 1, 1854, and shortly after being graduated from Washington and Lee university in 1876 took Horace Greeley's advice "Young man, go west". Senator Chamberlain had been in Oregon scarcely four years when he was elected to the legislature, and between then and 1909, when he was sent to Washington, he was in office most of the time. Senator Chamberlain was re-elected in 1915, but succumbed to the Republican landslide in 1920. He is a Democrat, is one of the Pacific coast's representatives, and has a 4-year term.

F. I. Thompson

EDITING and publishing have claimed Frederick I. Thompson, Mobile, Ala., ever since he assumed the editor's chair of the *Aberdeen (Miss.) Weekly* when he was only 17 years old.

This was in 1892 and for three years he guided public thought in Aberdeen, where he had been born on Sept. 29, 1875. In 1895 he went to Memphis, Tenn., on the *Commercial-Appeal Weekly*. Since 1909, Mr. Thompson has been chief owner and publisher of the *Mobile Daily and Sunday Register*, while in 1916 he acquired an evening paper—the *News-Item*—in Mobile. In 1912, Mr. Thompson was a member of the Democratic national committee. Mr. Thompson has a 2-year term on the board and represents the Gulf region. He was named on the shipping board selected by President Wilson late in 1920 but which was never confirmed by the senate.

Galveston, with its subport, Texas City, led all ports of the United States in wheat exports during the fiscal year just ended, according to figures announced by the local cotton exchange and board of trade. The figures are: Galveston, 86,645,551 bushels; New York, 51,517,000 bushels; Baltimore, 32,897,396 bushels; Philadelphia, 22,475,264 bushels; Boston, 3,592,571 bushels. The aggregate shipped from Galveston during the 12-month period was an increase of nearly 400 per cent over the exports of the previous year.

New Vessels Offered Shipyards

Two Passenger Ships Are Now Being Bid On—American Yards in Strong Position—More Repair Work

DURING the 12 months just past, American shipyards built vessels at the rate of 2,500,000 gross tons per annum, which was more than 10 times the tonnage they built prior to the outbreak of the war in Europe and approximately five times as much as the yards built prior to the construction program instituted by the Emergency Fleet corporation. Despite the pessimism which has recently been voiced so generally by irresponsible people, the American shipyard is today coming into its own and this is a fact which becomes the more apparent as government contracts for ships are brought to an end. It is the view held by George J. Baldwin, chairman of the New York Shipbuilding Corp., and president of the Pacific Mail Steamship Co.

"Although America was slow in following the British from wood to steel ship construction," said Mr. Baldwin recently, "our yards in recent years have gone ahead rapidly in the improvement of design for economical operation and in the development of speed and efficiency in construction. Following the standard industrial practice of the United States, our yards attract the best type of workmen by high wages, give them the most modern tools to work with and successfully meet the competition of low wage countries by the greater speed, and therefore, lowered unit cost of production. The result is that the best American yards can now turn out ships capable of the most economical operation and can deliver them with a promptness which is a valuable asset in the calculations of the owner or operator."

Three more yards have closed their contracts with the government and are now prepared to offer their facilities for private contract work. These are the Northwest Steel Co., Portland, Oreg.; the Doullutt & Williams Shipbuilding Co., New Orleans, and the Pacific Coast Shipbuilding Co., Tacoma, Wash. At the present time, American yards are holding contracts to build approximately 600,000 gross tons of shipping. Some new contracts are shortly to be let and before the year is out it is expected that there will be a fair amount of business. If, as is supposed now, the worst of the depression has been passed, new contracts should come in increasing numbers. At the same time, a movement is on foot to reduce again shipyard

wages to a point where they are more in harmony with industrial wages in similar lines of work.

The pronouncement of Chairman Lasker of the shipping board that he would sell the entire government fleet of wooden ships within the next 30 days and his acknowledged intention to sell off the steel ships as rapidly as possible, is having no depressing effect upon shipbuilding. It is manifest by this time that no matter at what price the government tonnage is to be sold, the cost of new tonnage will be at a remunerative figure as new tonnage will embrace only such types of vessels as the shipping board does not possess. Passenger vessels and refrigerator vessels are in great demand. Steamship owners themselves publicly declare that they would be happy to trade their entire fleet today for refrigerator vessels. Charters for these are not hard to find. Furthermore there are a number of plans under way to establish new cruising routes and all of these will require passenger tonnage.

Bid On Two Passenger Ships

The Red D line has completed its plans and specifications for two passenger vessels for trade between New York and Venezuela. Bids are expected this month. The ships have been designed by Theodore Ferris and are the first of any importance to be let so far this year. The steamers will have a deadweight register of about 4300 tons each, will have accommodations for about 190 passengers and will have a speed of 14 knots. They will be driven by geared turbines with oil fired boilers. The New York Shipbuilding Corp., the Sun Shipbuilding Co., the Newport News Shipbuilding & Dry Dock Co., the Bath Iron Works, the Federal Shipbuilding Co., and several others were invited to bid for the work.

The Red D line has decided to convert the passenger steamer ZULIA into an oil burner. The contract for the reboiling of the steamer, putting in new fuel system and effecting other repairs has been awarded to the Sun Shipbuilding Co. It is expected to have the work completed by the middle of August.

The Merchant Shipbuilding Corp. has been awarded the contract for the second police boat bought for the department of public safety of Philadel-

phia. The contract price is \$212,490 and \$20,000 more than the lowest bid submitted some months ago. The craft will be completed in seven months. She will be equipped with vertical compound engines, two Babcock & Wilcox boilers of the oil-burning type, and four turbine driven fire pots. The boat will be equipped with the latest fire apparatus.

The Buxton line has established a service between Richmond and Norfolk, Va., and several vessels are being rebuilt for its account through Chapman & Fisher, Philadelphia. Also a program for coast and bay service is underway which calls for the construction of two small passenger and freight vessels.

Reconstruction and repair work still constitutes the bulk of the construction activities of the shipyards. It has been estimated that the shipping board alone is paying out around \$1,250,000 a month for maintenance. The bulk of the shipping board repairs is being done in American yards; only where absolutely necessary are repairs made abroad. As the vessels are being withdrawn from caretaker the work of repairs increases.

A bid for drydocking business was made last month by the New York drydocks. James Shewan & Sons started the drop in price suddenly reducing the charge for drydocking from 16 cents per day per gross ton to 5 cents. This is only a fraction of the prewar charge for drydocking. Before the war the charge was 12 cents per gross ton for the first day and 10 cents per ton per day thereafter. Other yards in the New York district followed the cut initiated by Shewan.

The Federal Shipbuilding Corp. has put into commission a 9000-ton floating drydock. One of the Submarine Boat type of ships was the first to be lifted on the new dock. The new dock is capable of accommodating ships up to 460 feet in length. It has steel wing walls, with wooden pontoons. There are 18 centrifugal pumps, operated by eighteen 30-horsepower motors. The pumps are located at the outside end of each pontoon directly under the wing walls.

Willard Saulsbury and C. B. Evans have been appointed receivers for the Pusey-Jones Co. This company has shipbuilding plants at Gloucester, N.

J., and another at Wilmington, Del.

The efficiency of the workers at the plant of the William Cramp & Sons Ship & Engine Building Co., Philadelphia, is said to have increased 30 per cent since labor unions have been expelled from the yard. Young men have replaced men who should have been retired long ago. As a result the average age of employes has been reduced from 55 to 35 years. About 5400 employes are now on the pay roll.

The activity of the Merchant Shipbuilding Corp. in the general engineering field is evidenced by the consummation of two contracts running into large sums of money. One contract calls for the construction of two structural steel radio towers at Annapolis and for the remodeling of four existing towers. The towers contem-

Deliver Big Tankers to English Firm

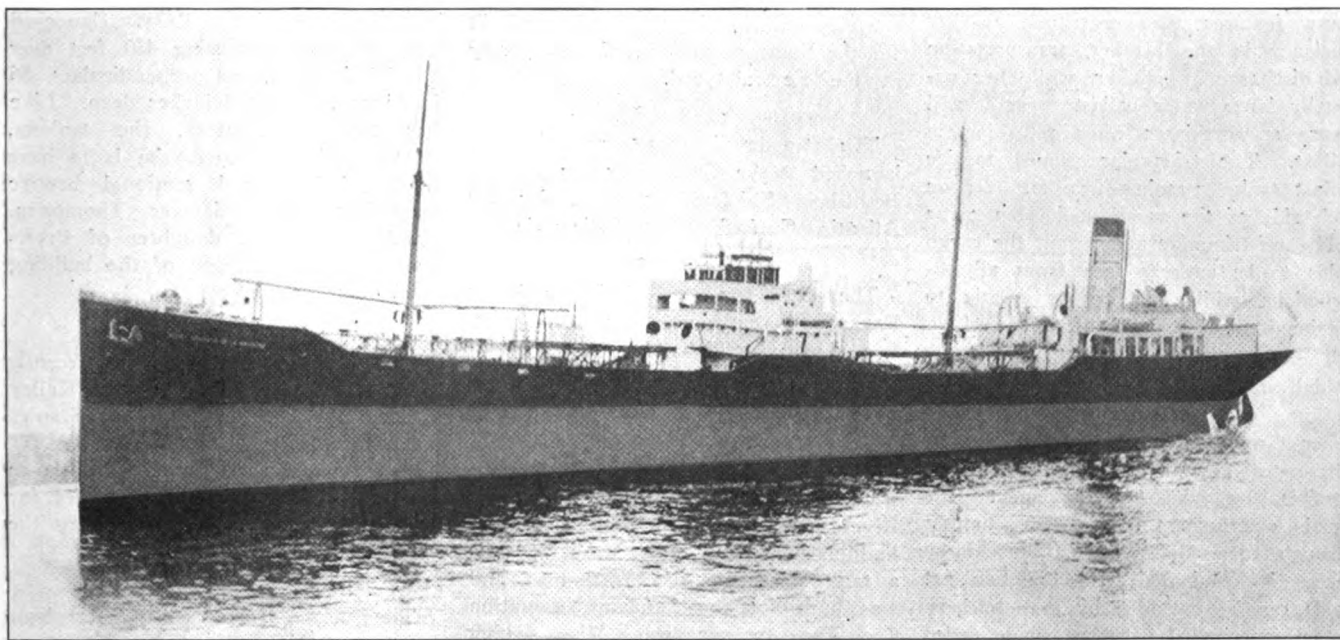
Following a successful deep sea trial run on May 20, the second of two steel tankers built at the Sparrows Point, Md., plant of the Bethlehem Shipbuilding Corp., Ltd. for the Lux Navigation Co., London, England, has been delivered to her owner. The first one of these tankers to be built was delivered on May 10. These vessels, the HENRY DEUTSCH DE LA MEURTHE and the EMILY DEUTSCH DE LA MEURTHE are similar in design to the well known "Shell" tankers, and are built on the longitudinal system of framing. They are classed at Lloyd's highest rating.

The total carrying capacity is 8350 tons deadweight on a mean draft of

zontal fuel oil pressure pumps, 6 x 4 x 8 inches, furnished by the builder are installed in duplicate for supplying oil to the burners. The pump room is located near midship, and is approximately 8 feet long, and of the same width as the vessel.

Two vertical simplex cargo pumps 18 x 16 x 24-inch stroke are utilized for handling the oil cargo on each ship. Feed, drain, fuel oil transfer, ballast and deck, and donkey and fire pumps are the same type. The main circulating pump is a 14-inch double suction centrifugal type, direct connected to an 8 x 8-inch vertical single steam engine.

The deck machinery for each vessel consists of two 8¼ x 8-inch gypsies located on the upper deck, a hand operated



8350 TON TANKER HENRY DEUTSCH DE LA MEURTHE BUILT BY BETHLEHEM COMPANY FOR ENGLISH OWNERS

plated are 600 feet in height. The other contract provides for the construction of 16 movable steel platforms for the construction firm of Snare & Triest, New York. The latter firm is at present building some docks at Stapleton, S. I., and it is in connection with this work that the platforms are needed.

The Bath Iron Works, Bath, Me., has been awarded a contract by the department of commerce to build five vessels for the lighthouse service at a cost of \$184,000 each. This is at the rate of \$347 per construction weight ton. There were 25 competitors making bids on these vessels. About a year ago, there were only two bidders for one vessel somewhat larger than the five in the new contract. The lowest bid at that time was at the rate of \$692 per ton.

24 feet 9 inches, with an oil cargo capacity of about 7600 tons. The principal particulars of the vessel are as follows: Length over all, 42 feet 0 inch; length between perpendiculars, 412 feet 0 inch; extreme breadth, 53 feet 3½ inches; molded breadth, 53 feet 1 inch; molded depth to upper deck, 31 feet 0 inch; molded depth to main deck, 24 feet 0 inch; speed, 11 knots per hour; type of engine, reciprocating; size of engine, 27 x 45 x 75 inches and 48-inch stroke; boilers, scotch; number of boilers, 3; steam pressure, 180 pounds; kind of fuel, oil and coal.

The builder's mechanical oil burning system is installed on each vessel, and the boilers are fitted with forced draft furnace fronts suitable for conversion to coal burning if desired. Engines and boilers are placed aft with the fuel oil tanks forward of the boilers. Hori-

capstan on the forecastle deck, two 8¼ x 10-inch compound geared winches on the upper deck, a 10 x 10-inch triple spur geared windlass, and a 9 x 9-inch horizontal spring-quadrant steering gear controlled by hydraulic telemotor. The auxiliary machinery was built at the Moore plant of the Bethlehem Shipbuilding Corp.

The results of the deep sea trials of these two vessels were unusually satisfactory. On the trial of the HENRY DEUTSCH DE LA MEURTHE, which was run April 21, an average speed of 12.90 knots per hour was maintained at a mean draft of 24 feet 9 inches. An average of 2833 indicated horsepower was developed at an average engine speed of 79 revolutions per minute.

On the trial of the EMILY DEUTSCH DE LA MEURTHE, which was run on May 20, the average speed per hour main-

tained was 12.36 knots at a mean draft of 24 feet 10 inches. An average indicated horsepower of 2985 was developed at an average engine speed of 79.25 revolutions per minute. During the trials of both vessels the fuel burned was oil with a gravity of 28 degrees baume.

New Sulphur Carrier

Designed to transport sulphur in bulk, the steamship *HENRY D. WALTON* has been delivered to the Union Sulphur Co. by the Newburgh Shipyards, Inc., Newburgh, N. Y. She is a twin screw single deck vessel, 356 feet length by 51 feet 6 inches breadth and 32 feet 5½ inches depth, and has a deadweight carrying capacity of 7346 tons on a draft of 25 feet 5½ inches. In her design and construction she presents many features that contribute to her efficiency in the loading, transportation and discharge of sulphur, while her unusually large water ballast capacity will insure seaworthiness when returning in ballast. The triangular shaped topside ballast tanks, running fore and aft on each side of the vessel, make the cargo holds self-trimming and permit the cargo holds to be entirely free from all obstructions, while contributing greatly to the longitudinal strength of the vessel.

The propelling machinery consists of a high and low pressure Parsons marine turbine, each driving a 14-foot propeller through a 36 to 1 reduction gear. These turbines are as far outboard as possible, by which arrangement the usual obstruction of shaft tunnels through cargo holds aft of machinery spaces is eliminated, and the two aft holds can be unloaded by grab buckets. Steam is supplied by three single ended Scotch boilers, using fuel oil, and this vessel has sufficient fuel oil capacity to give her a steaming radius of 15,000 miles at 12-knot speed.

Launchings—Deliveries

CANADIAN ENGINEER, the last of two single screw cargo steamers built by the Collingwood Shipbuilding Co., Ltd., on a contract taken by the Dominion Shipbuilding Co., was launched recently at Toronto. She is a Canadian government vessel of 3500 tons, 261 feet in length, 43 feet molded breadth and 21 feet loaded draft.

Augmenting its shipbuilding facilities, the Federal Shipbuilding Co., Kearny, N. J., has completed a new floating drydock.

Completion of the Theo. A. Crane's Sons Co.'s fourth drydock is expected

about Oct. 1, according to an announcement by the company. The dock will be of 12,000 gross tons. The others are 1100, 2500 and 5500 gross tons respectively.

In July, the Bethlehem Shipbuilding Co. from its Sparrows Point yard launched the *G. HARRISON SMITH*, the first of four combination oil and ore carriers being built for the International Petroleum Co. Each is to be 550 long, 72 feet beam, 32 feet depth and of 20,500 deadweight tons.

The twin-screw tanker *VICTOLITE*, of 15,000 deadweight tons, was launched June 14 at the yard of the Federal Shipbuilding Co., Kearny, N. J. The tanker measures 500 feet between perpendiculars, 68 feet beam, and 38 feet 9 inches depth, and is the fourth of a series of five sister ships being built for the Standard Oil Co. of New Jersey at the Federal yard.

The steamer *AGWIBAY*, recently was launched at the Fore River yard of the Bethlehem Shipbuilding Corp. for the Atlantic, Gulf & West Indies Co.

The 11,500-ton steel freighter *WEST FARALON*, recently was launched by the Los Angeles Shipbuilding & Drydock Co., Los Angeles harbor, for the United States shipping board.

The steamship *J. FLETCHER FARRELL* was launched recently at the Fore River shipyards of the Bethlehem Shipbuilding Corp., Quincy, Mass. She is a tank steamship of 10,600 tons and was built for the Sinclair Navigation Co. The sponsor was Miss Esther V. Farrell, daughter of the president of the company.

The single screw cargo steamer *CANADIAN PATHFINDER* was launched recently by the Collingwood Shipbuilding Co. from the Dominion Shipbuilding Co.'s yard at Toronto, Ont. She is a Canadian government vessel, 251 feet long, 43 feet beam, load draft 21 feet and deadweight capacity of 3500 tons.

On July 2, the Chickasaw Shipbuilding & Car Co., Mobile, Ala., launched the *MEMPHIS CITY*, a 10,000-ton steel steamship, the twelfth built at its yard. Two more steamships, the *KNOXVILLE CITY* and the *CHATTANOOGA CITY* are soon to be built.

The *WEST GREYLOCK*, third of five sister ships building for the shipping board, was launched in June by the

Los Angeles Shipbuilding & Dry Dock Co., Los Angeles. The *WEST LEWARK* has been delivered, the *WEST FARALON* is being fitted out, and the *WEST PROSPECT* and *WEST CHOPAKA* are on the ways. The *WEST GREYLOCK* is the thirty-third ship built by the company for the shipping board.

The last section of the steel drydock of the Ramberg Dry Dock & Repair Co., Inc., Brooklyn, was launched in June at the company's yard, at the foot of Dikeman street, Brooklyn.

The big steel steamship *ILLINOIS*, Port Arthur, Tex., the largest commercial ship to take the water from a Maine yard this year, was recently launched from the yards of the Texas Steamship Co., Bath, Me. The *ILLINOIS* is a duplicate of the *REAPER*, launched Oct. 30, 1920, measuring 430 feet over all, 415 feet between perpendiculars, 56 feet beam, 32 feet 9 inches deep. Like her two predecessors, the tankers, *REAPER* and *HARVESTER*, she is to have Scotch boilers and sectional bronze propellers. Mrs. Sawyer Thompson, Cambridge, Mass., daughter of President W. A. Thompson of the building firm, was the sponsor.

The barge *BARNSTABLE* was recently launched from the yards of the Kelley Spear Co., Bath, Me., for the Staples Transportation Co., Fall River, Mass. This is a coal carrying barge of large capacity and is one of two barges for which the contract was let during the summer of 1920.

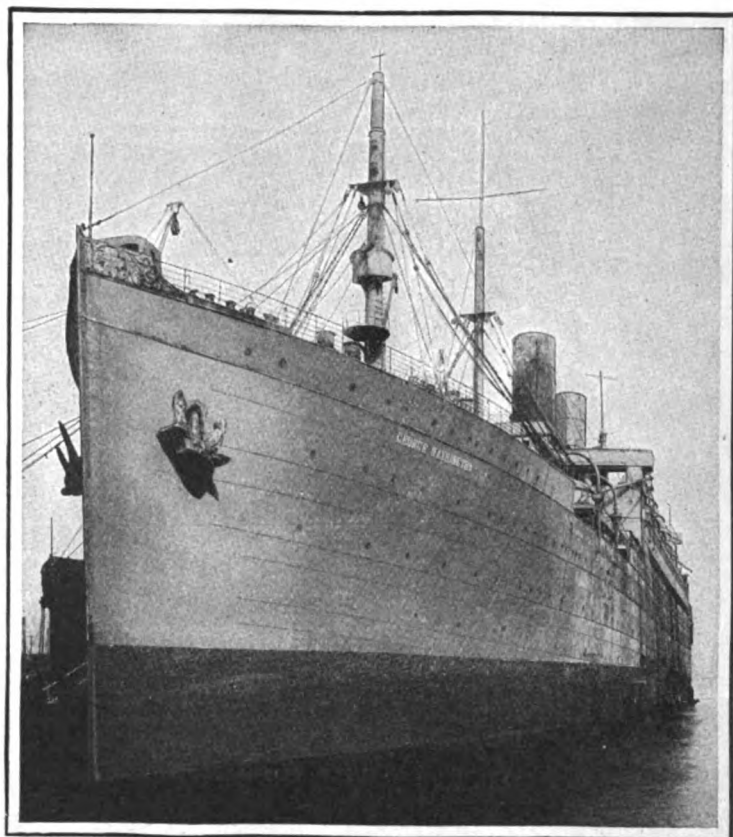
The new Boston city ferryboat *LIEUTENANT LAWRENCE J. FLAHERTY*, was launched recently at the Groton Iron Works, Groton, Conn. The craft is named for Lieut. Lawrence J. Flaherty, formerly of Company H, 101st Infantry, who gave his life in the war. A sister ship, the *RALPH PALUMBO*, also named for a Boston soldier, was launched at Chelsea, Mass. These ferryboats are of latest design and will be equipped as auxiliary fireboats.

Lieut. M. B. Pollock, naval constructor assigned to duty in the plant of the Los Angeles Shipbuilding & Dry Dock Co., Los Angeles, to supervise drydocking and repairing of destroyers and Pacific fleet auxiliaries, has developed a system by which he made a record of raising the destroyer *FARQUHAR*, thoroughly cleaning the hull, painting it with two coats, cutting in the new water line and undocking the ship, sending her on the way back to her base within the short span of five hours.

Big American Liner George Washington Returns to Service

**Great Vessel, Largest Passenger Ship
Ever Run in Commercial Trade Under
American Flag, Offers Unexcelled
Facilities for North Atlantic Passage—
Her Refitting Testifies to Shipfitters'
Skill—Repair Work Done Quickly**

BY V. G. IDEN



S. S. GEORGE WASHINGTON—LARGEST PASSENGER LINER
EVER IN ACTIVE SERVICE UNDER THE AMERICAN FLAG

REALIZATION of an ambition, fostered by all true-blooded Americans, is brought nearer by the sailing this summer of the luxurious transatlantic greyhound GEORGE WASHINGTON under the American flag. Historically this event stands out significantly in the maritime annals of the United States.

In the days of the clipper ship, America ruled the seas. The record of that famous old packet, DREADNOUGHT, which in 1858 made the passage from New York to Queenstown in 9 days and 17 hours, is never too often repeated. That was an American achievement. And it also stands to the credit of the Americans to have built the first steamer, the SAVANNAH in 1819, to cross the Atlantic.

But in the race to obtain supremacy in the transatlantic trade the United States was left behind. When steam supplanted sail, a number of Americans made an effort to carry the flag to the front, but one after another succumbed for one reason or another. During those days, the most noted transatlantic line under the American flag was the Collins, founded in 1848, which placed in service the most luxurious boats which up to that time had ever transported passengers across the Atlantic. In the old days the Collins line fleet was known as the United States Mail steamers, a name which is preserved today by the organization of the United States Mail

line by Francis R. Mayer, and under whose flag the finest and largest transatlantic passenger steamer ever flying the American flag, the GEORGE WASHINGTON, is placed at the service of travelers.

In 1858, the Collins line of United States Mail steamers was forced to withdraw, and since then to the present day only sporadic efforts have been made to put the American flag upon this most frequented seaway. Americans organized the Ocean Steam Navigation Co. in 1847 and organized the New York & Havre Steam Navigation Co. in 1848. But these lasted only a few years. From the time of the retirement of the Collins line until 1871 no further effort was made to sail American passenger steamers in the transatlantic trade. Then the American line was organized with steamers built in Cramp's yard to ply between Philadelphia and Liverpool. In 1884 these steamers were acquired by the Red Star line, but foreigners rapidly overshadowed them by building and sailing larger and more luxurious vessels.

Law Eliminated American Flag

The American flag disappeared from the transatlantic trade largely because the United States enacted a law forbidding the use of that flag on ships built in any but American yards. That prohibition sent American seamen to the English lines and encouraged the investment of American money in British boats.

It was a prohibition that stood out against American ambitions for a generation or more, and one that might never have been overcome except for the recent war and the acquisition of some large passenger ships by the American government which could be chartered to companies like the U. S. Mail line.

The flagship of the U. S. Mail line is the GEORGE WASHINGTON, a giant twin-screw vessel of 25,570 gross tonnage which provides the acme of luxury in ocean travel. This is the vessel chosen by President Wilson for his two crossings to France. The mighty liner is also familiarly remembered by thousands of American soldiers who were carried aboard her to and from the fields of valor "over there."

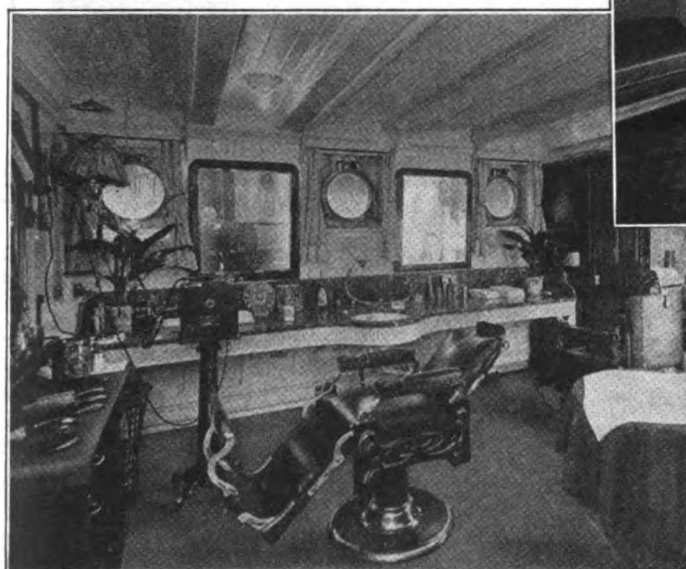
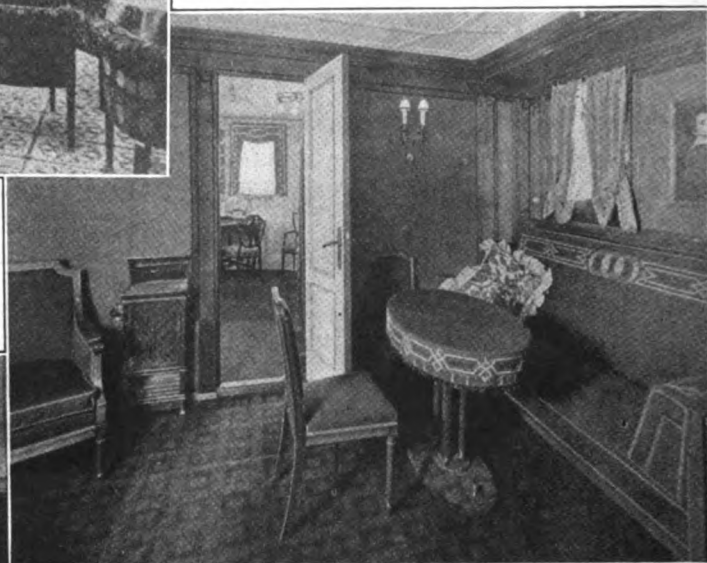
The ship has been completely renovated and reconditioned. The renewed general scheme of decoration of the vessel may be designated as of a Continental character with variations and adaptations of the Colonial and Georgian periods. Many of the paintings are of American Colonial historical interest, representing scenes reminiscent of the early days of the republic. Bronze and marble figures and busts adorn various niches throughout.

The two presidential and other suites are the ultimate word in steamship accommodation. The interiors are finished in the choicest hardwoods, with the most elaborate and painstaking cabinet



Social hall is a splendid example of the decorative ability of American ship fitters

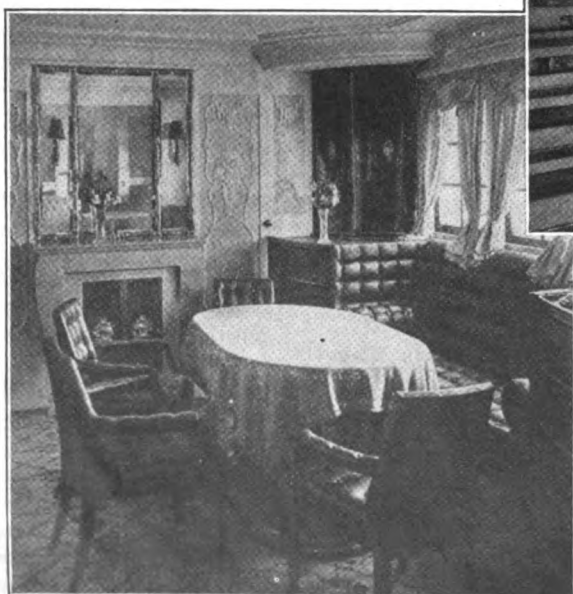
A cozy corner in the presidential suite



Scene in the well equipped barber shop



Main staircase leading from the social hall



Dining room of the presidential suite

inlay work that could be obtained. Each of the suites consists of drawing room, breakfast and dining room, bedroom fitted with brass beds, and bath. There are also special suites consisting of drawing room, bedroom and bath and cabinets de luxe with baths attached.

No less well appointed and with luxuries commending them to the most exacting tastes, are the regular first cabin rooms, which are well above the water line so that the windows may be left open in rough weather.

Contributing to the passengers' comfort are elevators between decks, a completely

brocade, form a convenient and attractive setting.

Special consideration has been given the planning of the accommodations for children. The liner has a play room and dining room for the youngsters. It is finished in French gray and old rose upholstery, and decorated with gaily colored prints of suitable character to appeal to its youthful occupants.

Second Cabins Unsurpassed

Unsurpassed accommodations for second cabin passengers are situated on the main and saloon decks of the ship. The

gether with an open deck space reserved for their use.

Of 22,622 gross tons, the steamship AMERICA will be a close contestant with GEORGE WASHINGTON for the favor of the transatlantic voyager. As a luxuriously appointed ocean greyhound, she is classed with the finest vessels ever launched. Her suites de luxe, staterooms and public saloons are remarkably spacious, bright and cool. The gloom and heaviness so characteristic of the decorations and furnishings of ocean liners have been banished. Lightness and cheerfulness have supplanted them.



SPECIAL PLAY AND DINING ROOM IS PROVIDED FOR THE CHILDREN

fitted gymnasium, a dining saloon with accommodations for 350 passengers, a finely appointed smoking room, writing room with a well stocked library and the grand social hall, the largest public room on the vessel. This room consists of a main central portion and four anterooms or bays. The center portion of the floor is available for dancing and when not in use is covered with heavy rugs.

A skylight, covering the entire central area of the hall, is of heavy leaded glass in simple and appropriate design and colors. A portrait of Washington surmounts the mantle and forms an appropriate center of interest for the room. A grand piano, settees, party and individual tables, social and winged arm chairs, upholstered in tapestry and

cabins accommodate two, three and four persons and lack only the most expensive decorations of the first cabin rooms to make them of equal charm. In fact, the entire second cabin equipment is superior to the first cabin on many ocean liners. The dining saloon has a large seating capacity and is situated amidships, which is additional insurance against motion in an exceptionally steady ship. The drawing room for ladies is on the promenade deck, and the after end of this deck is reserved for second cabin passengers. Immediately above is the smoking room.

Third cabin passengers are accommodated in well fitted rooms for two, four and six persons, in the aft part of the vessel, and are provided with separate dining, smoking and drawing rooms, to-

In the AMERICA, the U. S. Mail line has provided many of the refinements that are to be found on the GEORGE WASHINGTON. Elevators communicating through all decks, special baths, a florist shop, splendid library, social hall and ballroom are some of the features passengers will find for their comfort.

Wide decks are inviting for the promenade and wind screens will make more comfortable the use of the deck chairs when the weather is less favorable. As only first cabin and third cabin are carried, there is more deck space for passengers than is usually available.

Passengers traveling third cabin will have their choice of either the A or B classes. The former, staterooms with two, three and four berths, are arranged with toilet facilities conveniently

placed. Dining saloon, reading, writing and smoking rooms and a shop where fruit, candy, cigars, cigarettes, magazines and all the little things that voyagers like to have with them on the trip can be purchased, are included in the third cabin accommodations. Class B differs in the arrangement of sleeping quarters, these being of the open type and preferred by many passengers.

The AMERICA has the reputation of being one of the steadiest vessels afloat. She is equipped with the best known safety devices, including water tight transverse bulkheads and a double bottom extending the entire length and divided into 26 compartments. The water tight doors below level are equipped with a device which permits them to be closed by an electric switch operated from the bridge. The installation of a fire detection system in all holds eliminates risk of fire.

She Is a Steady Ship

The GEORGE WASHINGTON measures 25,570 gross tons, or 15,379 net tons. Her draft loaded is 23 feet 9½ inches and her load line is at the 33-foot mark. In length this ship measures 722 feet 5½ inches. She has a molded breadth of 78 feet and a molded depth of 44 feet 9 inches. These proportions make the GEORGE WASHINGTON a remarkably steady ship, in which regard she will not be surpassed on the Atlantic.

The vessel burns coal, her speed calling for 18 knots, equal to 400 sea miles per 24 hours. Her estimated fuel consumption per 24 hours is 350 tons. This gives her a steaming radius of 3900 miles on 3400 tons of coal. Her bunker capacity is 3900 tons, which in addition to the coal consumed to make her steaming radius, gives her 10 lay days operating at 50 tons per day.

The GEORGE WASHINGTON will be capable of transporting 3303 persons, crew and passengers. These will include 494 first cabin passengers, 453 second cabin passengers, 468 third class passengers in enclosed compartments and 1190 third class passengers in open compartments, making a total passenger list of 2605 persons. The crew list includes 15 officers, 30 petty officers and 79 men in the deck compartment; 7 officers, 13 petty officers and 178 men in the engineers' department; and 6 officers and 370 men in the steward's department.

The engines develop 20,000 indicated horsepower. There are eight double ended boilers and four single ended boilers with a total of 60 furnaces. Howden forced draft is used and the ship is equipped with the Rich fire detector system. In addition the Aero alarm system has been installed with a separate connection in each stateroom, giving

adequate fire protection to passengers.

The interior decorations of the GEORGE WASHINGTON were designed and installed with the assistance of many of the leading organizations of this character of work in the United States, including W. & J. Sloane, Lenygon & Morant, Cornell Emery, etc., who gave their highest talent to the development and execution of the details of this work. The general arrangement of the interior of the vessel has been allowed to remain somewhat in accordance with the original layout during its operation by the Germans, but the details of the decorative features throughout have been refined and modernized in conformity with the best American practice. Specially trained joiners, cabinet workers and decorators were brought together from all parts of the country for this work. The choicest of woods were obtained from all parts of the world, and scarcely a material used in decorative art does not in some place find its use in the scheme of the design of this vessel. There are to be found the various classes of mahoganies, teak, satinwood, ebony, the various maples, walnut, etc., which are in their respective places set off by inlays of other woods, mother-of-pearl, and metallic decorations in order to enhance the effect of the whole.

Tapestries, brocades, silks, satins, velvets, plushes, together with leather hand-worked in all forms and styles, are used throughout to supplement and complete the work of the cabinet makers. Carpets and rugs of domestic manufacture and oriental weaves have been brought together from the choicest markets of the country in order to complete floor coverings in all public spaces and private rooms. The decks in all passageways and public spaces have also been covered by composition tilings, and serve to brighten and finish surfaces where exposed about the margins of floor coverings and rugs.

Decoration Scheme Varies

The general scheme of decoration varies with different sections of the vessel, but in general may be designated as that of a Continental character with variations and adaptations of the Colonial and Georgian periods, which are drawn together to form a harmonious whole. Many of the paintings on the vessel are of American Colonial historical interest and represent scenes connected with the early days of the republic, such as the Centennial Hall in Philadelphia, the home of Washington at Mount Vernon, various scenes about the national capital, and views of both early New York and Boston. Bronze and marble figures and busts adorn various niches throughout and include the men and

women of Colonial fame such as George Washington, Martha Washington, Benjamin Franklin and others.

In detail the decorations of the public and de luxe rooms may be briefly summarized as follows:

The reading and writing room forward on A deck is finished in natural satinwood, inlaid with ebony and mother-of-pearl, developed along the lines of the Continental style. The cabinet work about the room, consisting of writing desks, book cases, cabinets, settees, etc., are executed with extreme skill, and certain doors are decorated with elaborate hand-wrought wood and metal grilles and screens to harmonize. The portable furniture and tables are constructed and upholstered to correspond, and complete the room in a most exquisite style.

Plan of Public Rooms

The lobbies about the passenger elevators leading to the grand social hall are tastefully finished in rectangular panels outlined with delicately tinted moldings and appropriately decorated. The elevator inclosures consist of hand-wrought iron screens, and the floors of the lobby within the limits of the vestibules are well tiled and laid with heavy rugs.

The grand social hall is finished in shades of felted French grays and decorated with fine paintings of American historical subjects.

The skylight is indirectly illuminated by numerous electric lights. The fireplace and mantel at the head of the room are exceptionally complete and correct examples of the Georgian period. The whole is formed by a shaped scroll pediment with a carved bottom member, while the head is decorated by an elaborately carved swag and shield of lime wood picked out with gold. The famous portrait of Washington has a frame of egg and dart enrichments and surmounts the mantel.

Each of the four anterooms, which are separated from the main area of the hall by panelwork and heavy brocade hangings, is developed in an individual style in natural mahogany, walnut, etc., the walls being finished with silk panels matching the natural woodwork of the rooms. Suitable tables, settees and chairs are furnished, and the spaces form as charming nooks for card parties or luncheon or tea service as may be desired.

The monumental stairway at the after end of the grand social hall, which is finished in felted grays to match the colors of the room, leads directly to the foyers of the de luxe suites on the deck below, and is ornamented in a simple style with panelwork and mirrors and a clock on the



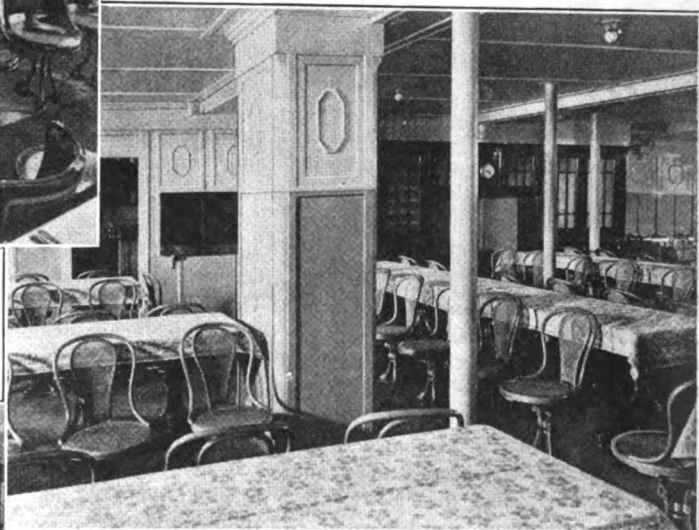
First class dining saloon will accommodate 350 passengers



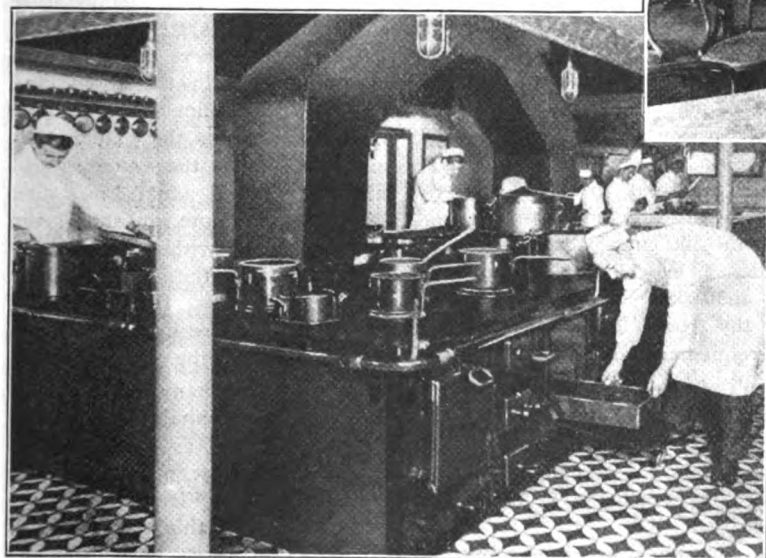
Second class smoking room



Second class dining saloon



Third class dining saloon



A scene in one of the kitchens. Splendid facilities are provided for feeding the 3303 persons carried on board the big liner

electric time system of the vessel.

The interior of the rooms and suites forward of the main monumental stairway are finished in the choicest of hardwoods, with the most elaborate and painstaking cabinet inlay work that can be obtained. The curtains, upholstery, hangings, etc., are of corresponding style and finish, and the portable furniture in the rooms designed and manufactured for their specific locations. Baths and toilet rooms are fitted with the most modern and complete plumbing and finished generally in enamel tile. As an illustration of the painstaking efforts in workmanship that was done throughout the ship, the white metal screws securing the tile have been so carefully set that the slots in the heads show in the same direction.

The principal suites in the vessel are also on this deck at the foot of the monumental stairway from the grand social hall. That on the port side, used by President Wilson and the King and Queen of Belgium when on the vessel, is constructed in veneers of mahogany and rosewood, inlaid with satin and other lighter woods, and decorated with panels of raised plastic. Mahogany and rosewood have been used freely in the furniture, and every effort has been made to hold the room intact as used by the President.

Finished in Natural Hardwood

The de luxe staterooms and suites on this, the A deck are generally finished in natural hardwood of various classes, with panel work decorated in *toile-de-jour* in colored tones to correspond with the natural finish of the wood. The beds, dressing tables, toilet fixtures, portable furniture, etc., are in woods matching the panel work of the room.

The upper smoking room, which terminates with the first-class passenger accommodations on this deck, is finished in natural walnut inlaid with ebony. The walls of the room, above the line of settees, are decorated in embossed hand-worked leather in rich brown tones, and the marble mantel above the electric fireplace at the after end of the room is surmounted by panes of plate glass mirror secured with metal studs and enclosed in metal frames. Heavily upholstered fixed settees and arm chairs finished in blue leather, together with individual and party tables, are placed about the room for the comfort and convenience of its occupants. A counter for the sale of cigars, cigarettes, etc., is located at the forward starboard corner of the room.

The foyers and open spaces of the B deck, which is given over chiefly to rooms with individual baths and de luxe suites, is decorated in a Con-

tinental style. The corresponding suite on the starboard side of the vessel, which was used by the family of President Wilson on both voyages to France during the time of the peace negotiations, is finished generally in veneers of maples, with inlays of ebony and other rare woods, with embossed leather decorations. The decks of each of the suites and rooms of this deck are heavily carpeted, and laid with Oriental rugs of the choicer weaves.

Also upon this deck are the electric baths, with their adjacent massage rooms, showers, and dressing rooms, for the use of such passengers as desire this means of refreshment and enjoyment. At the after end of the first class quarters on this deck is also found the gymnasium, which is properly and simply finished in maple, and equipped with the usual athletic apparatus and ladies' and gentlemen's dressing and bath rooms.

Will Seat 350 Persons

The bedrooms and sitting rooms on the lower decks are constructed generally in a manner equal to that on the upper decks, but with a less elaborate scheme of decoration and finish. The general character of these rooms is one of quality and refinement, wherein workmanship and materials have been used with utmost discrimination to produce appropriate results.

The main dining saloon, with a seating capacity of approximately 350, is in the center of the vessel upon the lower first class passenger deck. The saloon is exceptionally commodious, with ample clearance spaces in way of all tables, and surmounted by a center dome reaching to the second deck above.

The room is designed and constructed in the Colonial Georgian style and finished in cool shades of French gray. The decorations of the dome consist of Doric and Ionian columns, with a well designed wrought iron rail on the level of the upper deck, which presents an appearance of grace and lightness. Buffets and service tables are situated at convenient points, and large mirrors are fitted in the fore and after wall panels, adding to the spaciousness of the entire room. The upholstery and hangings of the room are in old rose, and all sidelights are fitted with inner sashes and draped with silk curtains in corresponding shades. The choicest of linen, silver, china and glass have been obtained, and the room gives an appearance of refinement and charm.

The children's dining and play room, which is adjacent to the main dining room, has also been worked up as a feature in the principal design. It is likewise finished in French gray and old rose upholstery.

The foyers and public rooms of the

second class accommodations have also been carefully and appropriately worked out by the decorating architect and, while in more simple lines and details than the first class, still exhibit the workmanship of a true artist and fully satisfy the most exacting.

The holds of the vessel are equipped with the latest improved type of the Rich smoke system. This device is a logical extension of the steam smothering system which is required by law. The steam smothering system or steam injectors which are made compulsory by act of congress and United States steamboat inspection service regulations, consist of a series of pipes leading from the high pressure boilers to all enclosed compartments and holds of the ship for fire extinguishing purposes. The Rich smoke apparatus, by means of a small exhauster, draws the first traces of smoke through these pipes and makes the smoke visible in a detecting cabinet in the wheelhouse whereby the location of the fire is immediately observed. Thus the fire extinguishing system required by law is made a complete protection by the detecting and locating features of this smoke system. The same pipe that found the fire is used to convey the extinguishing medium. The system operates continuously, indicating and extinguishing over and over again if fire recurs or spreads to other compartments.

Protection from Fire

This boat is equipped with a quite complete and modern fire alarm system. The saloons, card rooms, and passenger and crew's quarters are all protected by the system furnished by the Aero Automatic Alarm Co., New York. The small copper tubing on the ceilings of these rooms are the detecting elements of this system. Their operation is unique, in that it is not necessary for the heat from a fire to reach a high temperature before operating the system. All that is needed, is that there be a sudden rise in temperature in the room, and the air confined in this fine copper tubing will expand, actuating the diaphragms. This principle makes the system sensitive and it is said that no fire, no matter how remote or small, can gain any headway without the alarm being sounded in the engine room and on the bridge. The system is automatic and is ready for service at any hour of the day or night.

During the war many of the cantonments, base hospitals, and other government projects, as well as practically all of the large passenger ships of the Emergency Fleet corporation were equipped with this device. It is pointed out that there have been no

serious fires on ships where this system has been installed.

The *GEORGE WASHINGTON*, which was reconditioned at the Tietjen & Lang plant, Hoboken, N. J., of the Todd Shipyards Corp., will be engaged in the most exacting branch of the transatlantic service, connecting the United States with England, France and Germany by express steamer. She will be supplemented by the *AMERICA* on the same run. Specifically the *GEORGE WASHINGTON* will sail from New York for Plymouth, Cherbourg and Bremen. This line will continue the *PANHANDLE STATE* and the

Germany Holds Key of European Situation

John A. Penton, publisher of *MARINE REVIEW* and several other trade periodicals returned July 1, from an extended European tour. In commenting on the situation in Europe, Mr. Penton emphasized the importance of Germany as a pacemaker in the world's competition. German steelmakers believe, he said, that there are many steel items which they can deliver at American ports, despite the duty, more cheaply than American makers.

"The empire or monarchy in Germany

a small percentage of unemployed labor.

"Skilled workers in the iron and steel plants of Germany, including foundries and machine shops as well as those plants making rolled or forged material average in American money \$1.20 per day. In Belgium it is \$1.60 and \$1.80 a day. In France it is \$1.70 to \$1.80 per day, and in England when they work, which is not as faithfully as in the other countries mentioned, they receive from \$3 to \$3.50 American money.

"Compare these figures with similar plants in the United States where the wages are from \$6.50 to \$12 per day.



THE GYMNASIUM OF THE REBUILT *GEORGE WASHINGTON* IS EQUIPPED WITH ALMOST EVERY TYPE OF MUSCLE-BUILDING EQUIPMENT

OLD NORTH STATE in the run from New York to Plymouth, Boulogne and London. On all of these steamers, first cabin service is offered after the American idea of service. This means the voyager will be given accommodations and services to equal that which he has learned to expect from his favorite club at home, with the added touches of the best foreign viands and dishes.

The United States Mail line also has passenger liner service from New York to Bremen and Danzig and services from both New York and Boston to Naples and Genoa.

The shipping board's ocean going tugs, *FIRE PROOFER* and *PORTSMOUTH*, have been bought by William J. Donaldson, 121 Walnut street, Philadelphia.

is as absolutely dead as anything on earth. And the Germans are preparing to pay the amount of indemnity agreed upon by the issuance of the largest volume of bonds backed by the most stupendous tax program of all history.

"These bonds will be first lien on everything under the German flag afloat or ashore and as one important iron and steel manufacturer said to me 'We expect to make every payment promptly, we cannot help ourselves if we fail in any way, your navies and armies will come and collect'.

"And since that statement was made, Germany has remitted large sums to apply on her indebtedness. France, Belgium, and Germany are very much busier than we are in America and everyone is working hard and earnestly with only

German manufacturers insisted to me that they could meet American competition not only in other countries but that there were many steel items that they could deliver more cheaply at American ports, than American competitors and pay the duty.

"All of these countries are going after world trade in a most scientific way and we are going to see some history of an unusual kind in the manufacturing and export business of Europe.

"England is not torn and weakened by labor troubles but Englishmen themselves criticize the soviet tendencies of the government as well as the working people.

"This is evidenced by the payment of \$10,000,000 of the taxpayers money as a coal miners' bonus in spite of the positive withdrawal of the offer."

Coal Strike Hurts U. K. Shipping

Miners' Stoppage of Work Checks Upturn in British
Marine—Operating Costs are Lower as Wages Drop

BY CUTHBERT MAUGHAN
Shipping Editor, The Times, London

B RITISH shipping in the second quarter of the year has been entirely under the influence of coal, or rather the lack of this essential commodity. The British coal strike began on March 31 and at the moment of writing was still in progress. It has had the most far reaching consequences for ordinary cargo vessels, cargo liners, and mail and passenger ships. Into these three classes, British shipping has, it will be remembered, been divided in the previous articles of this series.

The British cargo steamer fleet has really been built up on the basis of export cargoes of coal and import cargoes of foodstuffs and raw material for manufacture. In 1913, the British exports of coal amounted to 73,400,000 tons. In 1920, in the autumn of which there occurred a brief stoppage of the coal output of the United Kingdom, the exports amounted to 24,900,000 tons. The reduction in exports of coal as compared with 1913 was thus 48,500,000 tons. Taking an average British coal cargo as about 3000 tons, this reduction in exports represented a decline of some 16,000 voyages. Yet, except for the stoppage of work in the British collieries for a few days in the autumn, exports were maintained throughout the year 1920.

Ships Out in Ballast

As from the beginning of April this year, exports ceased, and practically no shipments have been made during the past three months. That, by itself, represents a very serious loss to the British shipping industry. Never, at any rate until the outbreak of the war, had cargo steamship managers contemplated the possibility of dispatching vessels from the United Kingdom in ballast. Such a course would have been regarded as utterly uneconomic. The successful cargo steamship manager aimed at finding a cargo for his vessel each time she was ready to put to sea. Yet, during the past three months, innumerable cargo steamers have been leaving the United Kingdom in ballast. Many of them were able to crawl across the channel to a Continental port there to secure sufficient bunkers to enable them to steam to a transoceanic port.

Throughout the second quarter, a

steady demand existed for ships to load grain in South America for Europe. The route between Europe and the River Plate has always been one of the most important in the world. There was before the great war, a steady procession of vessels steaming outwards fully laden with coal and of vessels coming home with their cargoes of grain. At the beginning of the past quarter, the usual rate of freight quoted for the homeward voyage from the Plate was about 35 shillings per ton. This rate steadily increased until about 58 shillings per ton was being paid. The rates varied according to the availability of the vessels for loading. There appeared to be little sign of speculation. As cargoes were bought, tonnage to lift them was wanted, and higher rates were at once offered for steamers that would accept immediate, or almost immediate, loading.

River Plate Active

Chartering for this trade during the quarter has been very heavy. Scarcely a day passed but vessels were chartered for the work on the Baltic Shipping exchange in London. It was estimated that a freight of at least 50 shillings per ton was needed to cover the cost of dispatching a vessel to the River Plate in ballast and bringing her home with grain and to leave some margin of profit. There is little doubt that had cargoes of coal been obtainable for the outward voyage the homeward freights for grain would have been lower.

Some small consolation for the loss of the trade from the United Kingdom in coal was provided by the demand for vessels to load coal in the United States for Europe and South America. As is well known by all American readers, an immense volume of trade is now being done by the United States coal exporters with Italy and South America. It happened in the autumn of 1920 that large quantities of American coal had been shipped to northern Continental ports in anticipation of the continued shutting down of the British coal export market. There was some difficulty in absorbing all this coal. Consequently, when the stoppage occurred in the United Kingdom at the end of March,

exporters of American coal were disposed to adopt a much more cautious policy. Tonnage was only wanted for actual cargoes ready for shipment. Nevertheless, the business was of large proportions.

U. S. Coal for Bunker Stations

American coal was shipped to British bunkering stations freely, such as the Cape Verde islands, the Canary islands and Gibraltar. Considerable shipments were also made to the United Kingdom, but the freights fell to the managers of ships whose vessels were ready, or almost ready, for loading. The freight to the United Kingdom at first ranged about 32 shillings 6 pence per ton, but it advanced afterwards to 37 shillings 6 pence per ton. This trade meant that on one voyage the vessels proceeded, as a rule, in ballast for, as everybody knows, there is very little bulk cargo to be carried from Europe to the United States.

Managers of cargo liners, as well as passenger and mail ships, had to rely mainly on bunkers from outside the United Kingdom. The policy of this management was, as far as possible, to insure that ships arrived in England with sufficient coal to carry them back to an overseas port. Thus liners proceeding from New Zealand to the United Kingdom through the Panama canal would endeavor to ship sufficient coal at Newport News to enable them to steam back there on the outward voyage. In all cases, this was not practicable, and there were instances of liners proceeding from the United Kingdom to New Zealand through the Panama canal steaming some 500 miles out of their course in order to secure bunkers at the Azores. In many cases cargo liners were shifted from the United Kingdom to a Continental port to secure their bunkers. Even the MAURETANIA had to be sent from Southampton to Brest to secure coal and then had to be brought back to Southampton for the embarkation of her passengers for New York.

Coal Costs Cut Earnings

Earnings from passage rates and cargo freights have always been regarded for the United Kingdom as a form of most important "invisible ex-

ports." The services which British shipping has been enabled in the past to render to other countries have enabled credits to be formed in centers overseas which could be applied on the purchase of foodstuffs, raw materials and manufactures. Clearly these invisible exports have been very seriously reduced by the necessity of making payments for coal, one of the chief items of working costs, abroad. Heartily must the managers of the White Star line and the Cunard company have congratulated themselves on the wisdom of converting last year the OLYMPIC and AQUITANIA to the burning of oil fuel. A year ago the cost of converting the MAURETANIA was considered prohibitive, and the work was postponed. It is possible that the Cunard company may have since regretted that they did not convert the MAURETANIA to oil burning before the coal crisis.

British shipping has, therefore, been handicapped in various ways by the coal trouble. Lack of coal cargoes, delays in securing bunkers, and large payments abroad for fuel—these have all militated against the successful management of shipping.

Wage Reductions Made

In one respect the managers of the British shipping industry are able to congratulate themselves. What might have been a crisis on the question of wages was avoided. At the beginning of the quarter, notice was given by the owner representatives on the National Maritime board that a reduction of wages must be considered. After coal, wages represent a highly important factor in working charges. Happily, an agreement was reached without any friction.

Terms were discussed by representatives of the owners and the men. The original proposal of the shipping managers was for a reduction of £4 10s per month, which was countered by the representatives of the men with the suggested reduction of £1 10s. The compromise agreement was for a reduction of £2 10s per month in salaries and wages of all in the deck and engine room departments. This reduction brought the wages of the able bodied seamen to £12 per month as compared with £14 10s, and from £5 to £5 10s before the war. The new rate was, therefore, between two and three times the prewar standard.

The case of the shipping managers was very strong. At the time, shipping laid up idle in the United King-

dom represented some 4,000,000 tons deadweight, to which it had increased from 2,250,000 tons in the middle of January. Shipowners were, therefore, in a strong position in saying that if anything was to be done to bring ships back to service again, all costs must be reduced. The representatives of the men, of which one of the chief was Havelock Wilson, recognized the strength of the case, and a compromise was reached in an amicable way at a round table conference. Not so with the representatives of the catering departments.

The wages of stewards and others in this department had been increased during the war period to an even great-

leave according to schedule time. Such difficulties as developed were quite trivial and the incidents showed that the attitude of the leaders had been unwise.

Many Men Idle

Both in the case of the seamen and of the men in the catering departments it had been difficult to hold the owners together during the negotiations which were postponed for a month. The owners knew that all the men that were wanted would be forthcoming at rates lower than those officially proposed. The enormous amount of tonnage laid up meant that large numbers of men were unemployed. But leading owners were anxious that the matter should be carried out quite constitutionally and all owners were urged to await developments. There can be little doubt that the representatives of the men in the deck and engine-room departments were able to secure better terms for their men than the latter would have received if the agreement had been broken up.

Insurance Costs May Drop

Another direction in which at the end of the quarter there were signs of a saving in expenses was the cost of insurance. For many years there had been an agreement among marine underwriters respecting the terms on which vessels should be insured. The agreement first came into effect after a period of severe competition and after much money had been lost. It was revised annually and provided, more or less precisely, the sums for which vessels should be insured and the rates of premium.

The Marine underwriters had been very adversely affected by the increased cost of shipping repairs which, for many years, had been steadily rising. Especially to meet these higher costs, marine underwriters had felt compelled to maintain a firm front. But there were indications at the end of 1920 of difficulties in the way of renewing the agreement. The difficulties came to a head in June last, and it was found impossible to renew those features of the agreement which provided for the values assured, the rates of premium, and for giving underwriters previously on the risk the right to first quote again, a stipulation which had been made to insure continuity of treatment.

The net result of the breakdown of the agreement was that the market became a quite free one. Underwriters were at liberty to accept such

British Shipping Index

PRICES OF REPRESENTATIVE SHIPPING SECURITIES IN SECOND QUARTER OF 1921

Securities	Highest £ s d	Lowest £ s d	Date
Cunard £1 shares	1 0 0	0 16 9	April 13 May 5
Furness, Withy £1 shares	1 4 3	1 1 3	May 26 April 27
P.&O. deferred 360 0 0		320 0 0	April 26 June 21
Royal Mail S.P. 89 0 0			June 2
£100 stock		83 0 0	June 15

SHIP CONSTRUCTION IN UNITED KINGDOM, SECOND QUARTER 1921

	Gross tons
Tonnage launched, 100 vessels ..	321,688
Tonnage commenced, 23 vessels ..	69,028
*Tonnage building, June 30, 789 vessels	3,530,047

*Nominal figure, includes 1,000,000 tons of construction suspended or delayed. Active work going forward is only 2,500,000 tons.

SHIPPING MANAGEMENT FACTS, SECOND QUARTER OF 1921

	Highest £ s d	Lowest £ s d
Time Charter Rate: Ordinary British cargo steamers per ton deadweight per month ..	0 6 0	0 6 0
Voyage Rates:		
Plate-Kingdom grain, per ton	3 0 0	2 2 6
Australia-United Kingdom grain, per ton ..	3 0 0	2 10 0
Chile-United Kingdom Cont. nitrate, per ton ..	2 0 0	1 12 6
Fuel		
Coal: Best Welsh large at S. Wales, per ton ..	10 0 0	7 10 0
Oil: Per ton at Suez	14 10 0	12 0 0
Wages: A. B. seamen, per month	15 0 0	12 10 0
Firemen, per month	13 15 0	11 5 0
Assistant stewards, per month		

er extent than those in the other branches. The representatives of the catering departments refused to listen to any question of reduction and they left the Council chamber abruptly. The representatives of the shipping management then pointed out that they had no alternative but to put the lower rates into operation at once. At first there was some little dislocation, especially in the case of the AQUITANIA, whose complement of stewards included some hundreds of men, but even in this instance volunteers were forthcoming, and the vessel made a notable passage with many stewards whose previous experience with the company had been on the clerical staffs in the offices. In spite of threats by the representatives of the men, other liners were able to

values as they thought fit and, likewise, such rates of premium as seemed to them suitable. The consequences of this change of method were hardly to be seen before the end of the first quarter. They would only come into operation as fleets were offered for insurance. It seemed as if the owner whose record was good would gain from the freedom of the market, and would thus be able to obtain his insurance cheaper.

It is possible that more favorable underwriting terms may now enable owners to employ again ships which have long been laid up. For some months brokers had reported advice from their clients that if cheaper insurance could be obtained, they would be prepared to accept various charters which had been offered to them.

Operating Charges Down

The end of the quarter, therefore, found managers of all classes of vessels able to calculate on lower rates of wages and, possibly, lower charges for insurance. The price of ship's stores also fell. The hope of lower prices for coal was frustrated by the necessity of securing bunkers abroad. The volume of traffic passing was highly unsatisfactory, which was shown in the dispatch of cargo lines with only a small portion of their space filled, and in the continued laying up of an immense amount of cargo tonnage. In most routes, the volume of passenger traffic was still large, although there was ample evidence of increased competition in the north Atlantic trade. Happily at the end of the quarter, there seemed to be signs of a re-awakening of trade. These signs were apparent in the East, from which experienced authorities had anticipated the first break in the heavy clouds would be seen. At the same time, it was clear that Germany, favored by her low rate of exchange, was reaping the first benefit.

There was no lack of evidence that Germany was working industriously to regain her prewar position in world commerce. Values of shipping fell heavily during the quarter, and it was clear that the offering of a large number of ex-German ships allotted to the United Kingdom by the reparations commission was a contributory factor. These ships were numbered in scores. The absorption of all these vessels in the British mercantile marine was naturally a formidable matter, especially in view of the trade depression. From time to time, the suggestion was made that the sales should be opened to foreign buyers. The council of the Chamber of Shipping

ruled strongly against such a course. But the question cropped up again and in the middle of June it became known that 10 steamers among those allotted to England had been re-sold to German owners.

It was pointed out, in justification of a course which came as a surprise to the British shipping industry, that the ships had been working for the League of Nations, repatriating refugees in the Baltic, that they had flown the German flag, and were manned by German crews. They were sold without examination of the hulls for a price which Lord Inchcape declared was far more than he could have hoped to get from British buyers.

The announcement was also made that, as from the end of June, bidding for the ships allotted to the United Kingdom would be made available to all the world. In some cases British owners were known to have bought ex-German vessels with the idea of laying them up until employment could be found for them. A period of at least two years was actually mentioned as the probable time.

Ship Values Lower

The values which were being accepted were on a quite different level to those which had been secured in the latter part of 1920 and even at the beginning of 1921. As an instance, the ex-German steamer *MINNA HORN*, of 6312 tons deadweight, built in 1913, was sold to British buyers in December, through Lord Inchcape, for £63,000. Some difficulty arose about the payment, and in June the vessel was sold at public auction for £32,550, representing a fall in the value during the six months of nearly 50 per cent. It was only right that vessels should be sold comparatively cheaply to owners who had bought others at the much higher prices of a few months previously, in order to reduce the average values of the vessels.

The quarter closed, as it began, with shipping entirely under the influence of the coal situation. In the week beginning June 20 much disappointment was expressed that the coal miners were not resuming work in the United Kingdom, and so were not taking advantage of the British government's offer of a temporary subsidy of £10,000,000, which then expired. The failure to resume work on a large scale led to a very active demand for steamers to load American coal. Some British managers had exercised their judgment of events and had dispatched vessels to north America in ballast, and were able to secure freights ranging from about 32 shil-

lings to 37 shillings 6 pence per ton. On two days, nearly 50 American steamers were reported to have been chartered for this trade. Evidently large consumers thought it desirable to insure supplies.

Orient Trade Improves

In business quarters the continued stoppage of work in the coal fields was deplored. There were signs of an awakening of trade, especially from the Far East, and it was generally held that were coal to be assured trade would very quickly recuperate.

The actual conditions at the end of the quarter were depressing enough, but business men recalled that conditions are often at their worst before an improvement. They recalled how at one time it seemed as if the Great War would never end. Yet peace came suddenly and quickly. So they argued the coal trouble would more or less suddenly pass away, and that far better times for international commerce, and so for shipping, which is of an international character, were not far distant.

Test Fruit Carrier

The *MIRAFLORES* completed recently a successful trial trip at sea off the mouth of the River Tyne, England. She is a finely modelled fruit-carrying ship built and engined by Swan, Hunter, & Wigham Richardson, Ltd., Wallsend, England, for the Atlantic Fruit Co., New York. Her leading dimensions are: 270 feet in length between perpendiculars with an extreme breadth of 39 feet and a depth of 25 feet to the shelter deck.

The *MIRAFLORES* is a sister ship to the *St. MARY*, also built by Swan, Hunter & Wigham Richardson, Ltd., for the same owners and which was successfully tried at sea a few days earlier. The double bottom of the ship has been constructed to carry either oil fuel or water ballast. The captain and his officers and engineers are accommodated amidships, while the sailors and firemen have their quarters in the poop.

The propelling machinery consists of a single set of four-crank triple expansion engines balanced on the Yarrow, Schlick and Tweedy system. During the trial trip, oil fuel was used and the sea service speed of 12½ knots was easily attained. Steam is raised with two cylindrical boiler 16 feet in diameter and working at a pressure of 190 pounds per square inch under Howden's forced draft.

The Australian homeward freight conference made a 25 per cent increase in steamer freight rates from Sydney and Melbourne to Japanese ports, in June

What the British Are Doing

Short Surveys of Important Activities in Maritime Centers of Island Empire

ON JULY 8, the King formally opened the new Albert dock extension adjoining the Royal Albert dock in east London. This, together with the Tilbury cargo jetty which was opened for operation June 15, constitutes one of the most important improvements to the facilities of the port of London which has been completed in recent years.

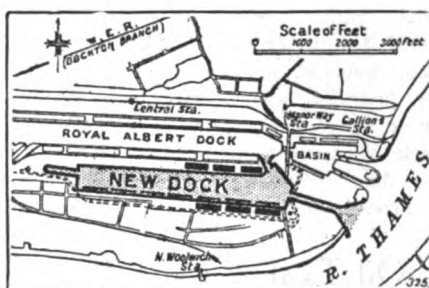
The new Albert dock comprises a wet dock with an area of 64 acres having a depth of water of 38 feet. The dock is 4500 feet in length and the breadth varies from 500 to 700 feet. It will provide berths simultaneously for 15 ships of the largest size trading to the port of London. The principal access to the dock is direct from the Thames by means of an entrance lock through which a depth of water 41 feet 6 inches has been provided. The lock is 800 feet long and 100 feet in width. It can be divided into two compartments respectively 550 and 250 feet in length. Three pairs of hydraulically operated steel gates have been fitted for this purpose. Provision also has been made for the temporary extension of the entrance lock to a length of 910 feet by means of a floating caisson.

The Tilbury cargo jetty has been designed for the use of ships wishing to load or discharge portions of their cargo without going into dock. It is a double jetty or pier 1000 feet long and 50 feet wide, parallel to and at a distance of 160 feet from the shore. Railroad tracks reach the jetty by means of an approach viaduct 900 feet long. The piers are fitted with a large number of cranes and a double-deck house for handling cargo. The cost of the jetty was \$1,250,000.

Now that the cargo jetty has been brought into service, immediate consideration will be given to the construction of a floating landing stage similar to that at Liverpool. For landing passengers at Tilbury provisional plans have been prepared for a stage 1700 feet long and 80 feet wide with a depth of water alongside capable of accommodating the largest ships afloat. Six passenger platforms each 800 feet long, two baggage platforms, a customs inspection room, etc., would be provided. These improvements will

be of special interest to passengers traveling to London from New York via the United States Mail Steamship Co., and other lines using the port of London.

LORD INCHEAPE, who has charge of the sale of ex-enemy tonnage in Great Britain, has announced that since June 30, former German ships are being sold without discrimination. Heretofore the sales have been confined exclusively to British nationals. Some criticism has been leveled at Lord Inchcape on account of this change of policy. Lord Inchcape, however, who is interested in selling the



SKETCH PLAN OF NEW ALBERT DOCK AT LONDON

ships, rather than in political considerations says: "We cannot go on holding up vessels indefinitely incurring serious laying-up expenditure. Needless to say these arrangements are being made with the full concurrence of the reparations commission. During the last two years and a half, I have sold altogether something like 600 vessels for H. M. government, realizing about £60,000,000 (\$240,000,000). We have heard a good deal lately about a minister with a salary and without a portfolio; in my case it is the other way round."

SE. SAUNDERS, Ltd., Cowes, Isle of Wight, has reopened its ship and boat-building yard on a nonunion basis. This is believed to be the first attempt in Great Britain for some years to break the grip of the closed shop on British shipbuilders. The full union scale of wages is being paid. Since under present conditions, it is not considered feasible to operate an open shop it has been decided that no union men will be employed. It is stated that

the reopening of the yard under these conditions has already proved a success.

AT the annual meeting in London of the shareholders of the Eagle Oil Transport Co., Ltd., the Hon. B. C. Pease, chairman, stated that owing to the charterers' need for prompt tonnage, orders for four vessels have been placed with American builders, making a total of eight vessels ordered from United States yards. Six of the eight vessels have been delivered, and the other two should be delivered shortly. In Great Britain, various delays in the shipbuilding industry have resulted in the company not receiving delivery of any of its 18,000-ton geared turbine vessels, but two have been launched and it is hoped they will be in commission within the next few months. When all the vessels on order are delivered, the fleet will consist of 39 vessels with a total deadweight capacity of approximately 450,000 tons.

THE ship stewards' strike, which threatened to interfere with passenger traffic a month ago, has collapsed completely. Men are now signed on without difficulty at the new reduced rate of wages of £11 5 shillings (\$45) per month. This rate is still over 200 per cent higher than the 1914 scale.

AS SHOWING the importance of the cost of coal to shipping companies, some interesting figures were given by Sir Owen Phillips, the chairman of the Royal Mail Steam Packet Co., at the annual gathering in London on June 1. It is claimed that this company with its affiliated concerns owns one-ninth of the entire mercantile marine tonnage of the United Kingdom. The chairman stated that in 1903, the average price of coal to the company was £1 2s 3d per ton. In 1913, the cost including rail freight was £1 2s 11d, but last year the average was £6 1d. If they were to regain their trade supremacy and secure employment for the large number of steamers now laid up, the price of coal would have to come to its prewar level or possibly lower.

British Ships Idle as Germans Are Active

Recent returns from 36 of the principal ports of the United Kingdom show that 1160 ships representing 1,707,262 net tons are laid up and out of commission indefinitely. This compares with 611 vessels representing 940,564 net tons at the end of January.

Some improvement was shown in March, and the serious reaction is attributed solely to the coal strike. The total number of British vessels engaged in the foreign mercantile carrying trade at the end of last year was 4000.

British shipowners are impressed by the stagnation of British shipping and the remarkable activity at German ports. Entrances and clearances in the

overseas trade at Hamburg, which were 1,900,000 net tons in 1919, rose to nearly 7,000,000 tons last year. Formerly 60 per cent of Hamburg's foreign trade was in German bottoms while the British share was about 30 per cent. Now, on a trade which has sunk to less than one-third of the 1913 volume, Germany has 24 per cent, United States 23 per cent and England 21 per cent.

British Ship Work Near Standstill

From Our Middlesbrough Correspondent

BRITISH shipping is still idle and in only isolated cases is any work being performed in the shipbuilding yards. The ports are so crowded with idle merchant and passenger vessels that it is difficult to find any anchoring space. In the river Tyne, over 200 vessels of approximately 260,000 tons net register are laid up. This cessation of the trade of the Tyne has resulted in a loss of revenue of about £100,000 (\$400,000) to the Tyne commissions during the past 12 months.

The seriousness of the present situation has been aggravated by the continuance of the miners' dispute which cuts out the Scandinavian customers needing Northumberland coal. About 80 per cent of the Northumberland output was shipped overseas. The decline in the Tyne coal shipping business is shown by the fact that there has been a decrease during 12 months of 1,871,690 tons compared with the corresponding period last year. This represents 14.72 per cent as compared with the year 1919 and a decrease of 9,456,904 tons—equal to 46.59 per cent as compared with 1913, the last pre-war year.

Shipping companies are in the unwelcome position of having their depots stocked with coal acquired before the strike. But only sufficient quantities may be taken from those stocks to take vessels across the channel. Coal is then obtained at continental ports. So serious was the consequence of this rationing of coal that several vessels sailed for the continent from the Hartlepoons with pit props for bunkers.

These conditions have brought into prominence the schemes for providing oil fuel facilities on the northeast coast. On the Tyne, much progress has been made to develop oil bunkering as an additional means of adding to the trade of the river. Oil bunkering installations already exist at South Shields and Albert and Albert Edward dock. At Jarrow Slake, work

is proceeding on a new installation. It is hoped by these schemes to place the Tyne in the forefront of British ports capable of supplying vessels with either coal or oil fuel.

* * *

'Drop in Ship Values

An indication of the difficulties which British shipbuilders have to face is provided by the reported sale of two newly built vessels. They were completed to the orders of Italian buyers, who, however, found themselves unable for financial reasons to take delivery. These ships, it is stated, were sold last week in London to Spanish buyers at less than one-third of the original cost of production.

* * *

Oil Tanker Launched

A further instance of the development of the oil propelled vessels is provided by the launch recently of the *Liss* at the Tees yard of the Furness Shipbuilding Co. The vessel was built to the order of Messrs. Krezi-masko, Christiania, Norway.

The vessel has been built on the transverse system of framing, following the method of construction of several large oil tank ships now being completed. In connection with the oil spaces, exceptionally good results were obtained when testing the oil fuel holds and bunkers. This was due to the Furness method of designing the material to standard dimensions and rivet spacing so that multiple drilling is applied as far as possible, thus insuring perfect workmanship. The Furness Shipbuilding Co. developed the multiple production methods with great success, and its system is noted for rapidity of construction and character of workmanship, a point which is of special importance in oil tank ships.

The propelling machinery, supplied by Messrs. Richardsons Westgarth & Co., Ltd., Middlesbrough, consists of a set of triple expansion engines, having cylinders 27, 45 and 75 inches diam-

eters, stroke 5 inches, together with complete set of auxiliaries, including evaporator, auxiliary condenser, cascade filter and compensator heater.

At the reception after the launch J. McGovern, managing director of the Furness company, referred to the coming of oil in the propulsion of vessels which he prophesied would oust coal. He added that "the difficulties of oil fuel were well known, but the time was near when the oil tank steamer would be considered the right kind to possess."

* * *

New Vessels

The record of launches on the Tyne during May shows that there was a reduction of 7128 tons net register from the corresponding month last year.

The first steel ship built at Amble was launched in June. Built to the order of the Jarrow Corp., she will ply between that town and Howden and will carry 650 passengers. The builders are the Amble Shipbuilding Co., successor to the Amble Ferro Concrete Co. Four other vessels are in course of construction at this new yard.

The steamer *MIDDLESEX* has been built and engined by Swan, Hunter & Wig-ham Richardson Ltd. at its Neptune Works, Newcastle, to the order of the Federal Steam Navigation Co., Ltd., London. The steamer, which is of the most modern type, is designed to carry frozen meat and general cargo, holds and 'tween decks being insulated for the former purpose. She will carry over 12,000 tons deadweight on a draft of about 29 feet. The boilers may be fired by either oil or coal.

Launched from the shipbuilding yard of Messrs. William Hamilton & Co., Ltd., shipbuilders, Port Glasgow, the steel screw steamer *ERA*, was built to the order of Messrs. Howard Smith, Ltd., for its Australian coal trade. The vessel which is of the poop, bridge and fore-castle type, has been built under Lloyd's special survey, and has a dead-weight carrying capacity of 2350 tons.

New French Liner

A veritable "first night" was arranged at le Havre for a few invited guests of the Compagnie General Transatlantique on board the *PARIS*, the latest and finest of French passenger steamers on the occasion of the steamer's departure on its first voyage to New York on June 15.

Some had seen the hull of this magnificent ship laid up alongside the launching berth at Penhoet in the early days of the war—the boat was actually

and more an expression of the new idea in decoration and furnishings where light and inlaid woods and opalescent glass and flimsy draperies take the place of the overburdening classical motives of the good old monarchical times, which curiously have been so long conserved in ship furnishings.

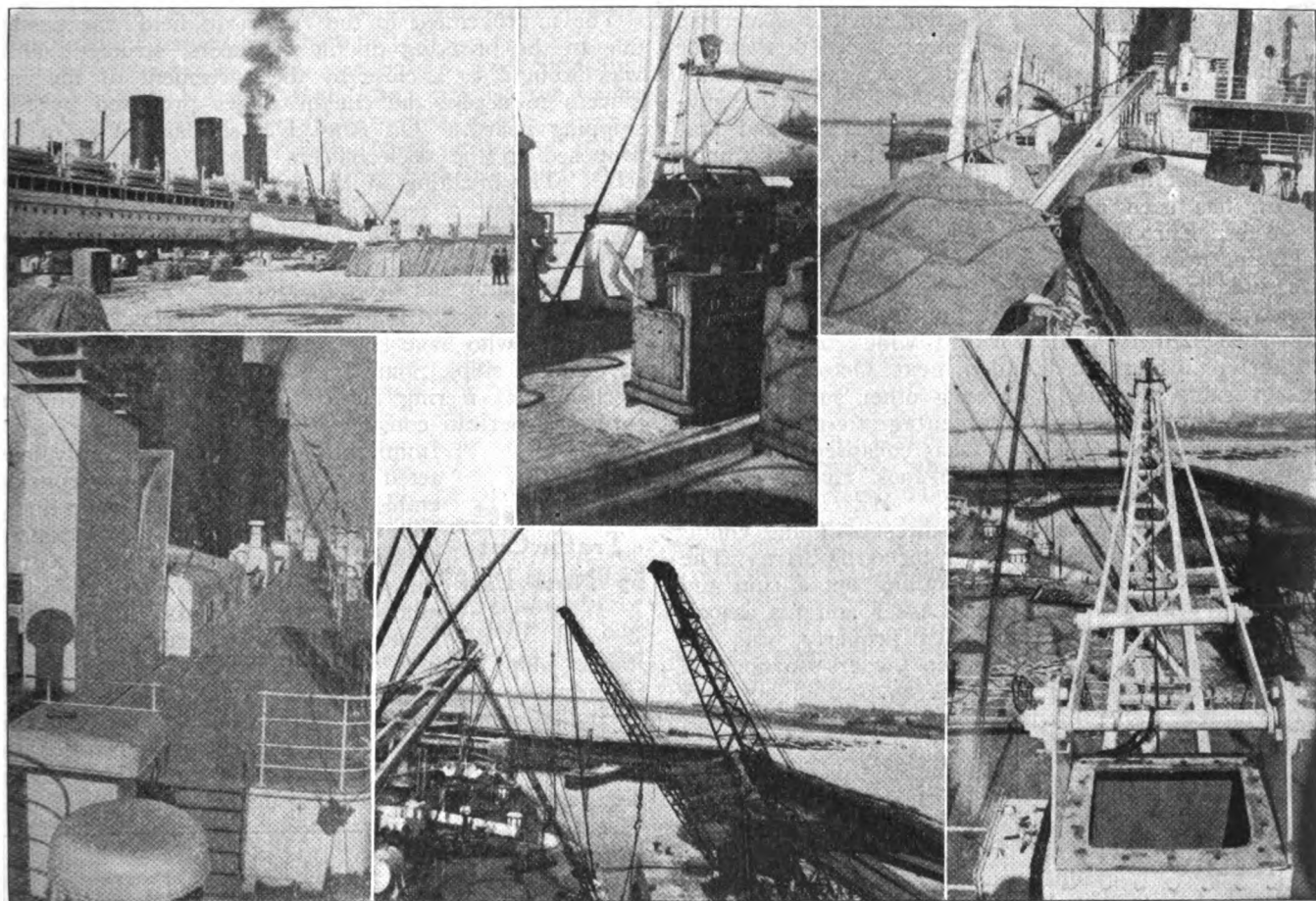
The *PARIS* is the largest of French steamships, with 2 pole masts, 3 funnels, 4 screws, 15 boilers with 120 furnaces, burning oil. The *PARIS* is 788 feet long with a gross tonnage of 35,000.

The vessel carries a personnel of 664

and more an expression of the new idea in decoration and furnishings where light and inlaid woods and opalescent glass and flimsy draperies take the place of the overburdening classical motives of the good old monarchical times, which curiously have been so long conserved in ship furnishings.

tique began its services exactly 57 years ago, counting the day of departure of the *PARIS* for New York, with its mail packet the *WASHINGTON*. This craft had a length over all of 100 meters, 5600 tons displacement and 800 horsepower. The accommodation was for 200 passengers and the crossing was made in 12 days instead of the projected five and a little more for the *PARIS*.

An innovation on the *PARIS* is the full length sun deck running from bow to stern, the major part susceptible of being enclosed in bad weather. Still another



VIEWS OF THE LINER *PARIS*, NEW FRENCH ATLANTIC GREY HOUND. LEFT TO RIGHT, TOP ROW, AT QUAI DE LA MAREE, LE HAVRE; BRITISH BOAT DAVITS AND BELGIAN ELECTRICAL EQUIPMENT; LIFE BOATS IN AMPLE NUMBER; BOTTOM ROW, THE "INNOVATION DECK"; ONLY AMERICAN NOTE, CRANE LOADING NEW LINER; BAGGAGE CRANE ON THE *PARIS*

launched in 1912. All during the war period, the work was held up in favor of the more important arts of war but as soon as possible after the armistice the fitting out was reundertaken and today the steamer stands as the *dernier cri* in the art of the shipbuilder and decorator.

The decorations are less costly, less classically French and more of a search after the modern than anything which the French have previously done in ship fitting. The older sister ship, the *FRANCE*, is resplendent in bronze, tapestries and furniture of the reigns of all the Louis. The *PARIS* is more sober, less costly

and has accommodations for 3240 passengers, a total of 3904 persons.

The steam and speed trials which had only been completed two days before this inauguration at le Havre resulted in a sustained speed of 22 knots, which was considered in every way acceptable to Commandant Maurras for the company and the representatives of the builder, the Chantiers et Ateliers de Saint Nazaire, Penhoet. This builder has now on the ways five cargo steamers of 9000 to 10,000 tons and is fitting out two British liners.

The Compagnie General Transatlan-

is an upper, a sort of flying, promenade deck, giving largely increased promenade space. This upper deck makes 11 to the ship, which of itself is claimed as an innovation.

An established precedent has been broken at the port of Houston, Tex. Mexican sisal which has been imported exclusively through the ports of Galveston and New Orleans, as far as gulf ports are concerned, is now being handled by the newest gulf port of them all, Houston. Two cargoes of sisal have already been received.

World Charter Market Reviewed by

RELEASE SHIPS

**Board Withdraws More Vessels
from Caretaker as Trade Revives
—Third Class Rates Are Cut**

SHIPPING conditions may be bad in Europe, and that may have its reflection in the American market, but it is generally conceded that the merchant marine of the United States is today much the strongest because it has the backing of the government. So bad have conditions been abroad that the marine insurance underwriters refused risks upon the merchant fleets of one European nation and now a ban has been placed upon the merchant fleet of a western European nation. It is alleged the owners take out heavy covers on their vessels and then they are sunk by some mysterious cause. This is a condition which can not continue much longer and it is now proposed to hold a world wide conference of steamship owners in London next October to discuss various remedies. Among other suggestions to be made is one to adopt a percentage tie-up program.

Shipping all over the world has collapsed, Chairman Lasker declared soon after he took charge of the affairs of the shipping board. Mr. Lasker then went on to picture one of the direst shipping conditions any public official has ever dared to portray. The American merchant marine is nothing but a ruin and the country must look to Mr. Lasker and his associates to salvage the government's property, was the theme. Many American steamship owners do not feel that the picture is quite as black as painted but they are willing to give the new board all possible credit if it can better conditions.

New Board Tackles Hard Job

The appointment of a claims board, the writing off of war values on the government ships, the disposal of the wooden fleet and the gradual sale of the steel vessels, will undoubtedly help much, and Mr. Lasker, with the approval of President Harding, has laid out that program. The next thing will be to appoint a competent operating head for that position. Chairman Lasker has asked for nominations from American steamship men. If it is true, as announced from Washington, that the shipping board will book the value of its fleet at \$50 a ton, an important move toward normalcy seems to have been made. It is regarded as fallacious to claim all is chaos and operations up to now have been inefficient. The records of the work done by a number of operating managers of shipping board vessels will disprove the latter, and the actual clearance figures will disprove the former, it is pointed out. Furthermore, the cost of keeping the 663 steel ships which the shipping board has in active commercial operation fit for service has been brought down to \$0.059 cents per deadweight ton per week. Sometime back this figure was \$0.182 cents per week. When the depression was worst some 750 shipping board vessels were tied up, including the

wooden ships and many small steel vessels. The percentage of tie-up in tonnage, however, was much smaller. During the past three months many of the tied-up vessels have been withdrawn from caretaker and assigned for operation. During June alone, 86 such vessels were ordered withdrawn from inactivity and assigned for operation. These totaled approximately 700,000 deadweight tons, or nearly one-tenth of the whole shipping board fleet. The withdrawals from caretaker and assignments for operation during the latter part of June were especially large.

The improvement in the American field was partly due to the breaking of the engineers' strike. This was brought to a close by the agreement of the engineers to accept the cut in wages proposed by the shipping board. On Aug. 1 a similar cut is to be proposed to the deck officers aboard American vessels. The breaking of the engineers' strike not only brought about a reduction of wages but also broke the strangle-hold of the unions. A break in the power of the unions was also reported at Buenos Aires where shipping has been tied up for several months. The shipping board is displaying an aggressive attitude toward all who have tried in the past to graft off the government ships. Some arrests have resulted from the disclosure of a ring at Rio de Janeiro, involving a former American consul.

Third Class Traffic Cut by New Law

Immigration legislation recently enacted by congress is causing considerable trouble to the passenger lines, but that has not as yet seriously affected American ships. As a result of that legislation restricting the number of immigrants entering the United States, it is said some eight Italian ships are to be withdrawn. Italy, it is furthermore stated, proposes to restrict the movement of Italian immigrants to the United States to Italian and American vessels. The Fabre line proposes to cancel the sailing of the MADONNA and ROYAL from Mediterranean ports for Providence and New York.

The North Atlantic passenger conference has reduced the third-class passenger rate between New York and Antwerp from \$125 to \$120. From German ports the rate is \$125; from Danzig it is \$135; from Libau it is \$145, and from Riga the rate is \$150. These rates are much lower than the peak charges. Owing to the British coal strike, American shippers, it is said, were able

Want Alaskan Line

ESTABLISHMENT of a government shipping line between the United States and Alaska, to connect with the government railroad in that territory, and co-ordination of all federal activities relating to Alaska, are proposed in a bill referred to the senate territories committee. The measure was drawn, it was said, after consultation with the Alaskan delegate, and several business men of Alaska.

Under the bill the shipping board would be required to transfer to the secretary of the interior ships of sufficient number and tonnage to run between the United States and Alaskan ports for operation in conjunction with the Alaskan railroad.

Experts in this Country and Abroad

to book approximately 1,500,000 tons of orders. The settlement of the strike the latter part of June brought a cessation to the coal orders and a return to normal rates again. During one week the shipping board fixed 54 of its steamers for the United Kingdom coal business alone. The English owners are undoubtedly chagrined at this situation and they have been more than ever determined to fight the inroads of the Americans. While shipping board vessels underquoted the British conference ships to move Egyptian cotton to the United States, American vessels were said to have been excluded from that trade by the Alexandria Produce association.

In an endeavor to force the outside lines into the conference or to break them, the rates on the principal commodities to Levant ports were slashed during the past month, some as much as 40 per cent. These cuts were aimed primarily at the Japanese lines serving India, which have diverted their steamers to Levant ports. The United Fruit Co. reduced certain rates from New York to Havana and Santiago. The steamship interests are now striving to bring about a better understanding over the differential between Atlantic and Gulf rates on overseas traffic and for that purpose a conference was called to meet in Atlantic City. At this conference the question of territorial division will be brought up.

Grain Movement Heavy

Cuban sugar has been accumulating at Havana while American refiners report adequate stocks on hand. Aside from grain, coal constituted the commodity of greatest activity during the month. During one week alone last month, approximately 100 ships were fixed for this trade, most of it going to Europe. The Swiftsure Oil Transportation Co. has chartered the tank steamer SWIFTEAGLE to the Northern Grain Warehouse Co. to carry a full cargo of wheat from Portland, Oreg., to Europe. The more recent difficulty with the government of Mexico over the Mexican oil tax has temporarily jeopardized the oil business. The shipping board has chartered the steamer ORION on a bare boat basis to the Baltimore Trans-Atlantic Steamship Co. at a hire of \$2.50 per net registered ton per month. The Munson liner MATHA WASHINGTON, after being held 10 weeks in Buenos Aires by labor troubles arrived home last month. The A. G. W. I. has decided to mortgage its

Deliver Last Liner

THE BLUE HEN STATE, last of seven 522-foot combination freight and passenger liners to be built by the New York Shipbuilding Corp., Camden, N. J., for the Emergency Fleet corporation, was delivered July 6. By a late change in the allocation plans, the BLUE HEN STATE will be operated by the New York & Cuba Mail Steamship Co. rather than by the United States Mail Steamship Co.

Open steerage accommodations for about 650 passengers will be installed on the BLUE HEN STATE, and she will operate from Spain to Cuba when completed.

The United States Mail Steamship Co. will retain the PANHANDLE STATE on the London service.

RATE ADVANCES

**Tariff on Lumber from Pacific to Orient is Maintained at New Level
—Railroads Try to Regain Trade**

new fleet of tank ships to compensate the builders. The mortgage, it is said will be for \$10,000,000. The George H. Wells Steamship Co. has returned to the shipping board the three vessels allocated it for the New York-Boston-Manchester freight service. The United States Transport Co. and the France & Canada Steamship Co. have also ceased to be shipping board operators. The shipping board has appointed the New York & Argentine Steamship Co. as managing agent for a general cargo service from Hamburg, Antwerp and continental European ports to the River Plate of South America. This line operates from New York to South America. The shipping board, it is understood, will have five River Plate services to European and Scandinavian ports. Aside from the New York & Argentine Steamship Corp. service there will be the Moore & McCormack from River Plate to Scandinavian ports; Green Star line to Mediterranean ports; Oriental Navigation Corp. to Portugal and Hamburg, and the International Freighting Corp. from River Plate to the United Kingdom ports.

Moore & McCormack have a direct steamship line between Philadelphia, Cork, Dublin and Londonderry. The Red D line is now inviting bids on two new passenger vessels which will be placed in the run between New York and Venezuelan ports. The Atlantic Gulf & Pacific Steamship Corp. will try out the run between Portland, Oreg., and Norfolk, Va. The business at Norfolk of the Export Transportation Co., Baltimore, is to be taken over by the Hampton Roads Steamship Co. Services are maintained to the United Kingdom and Dutch ports. The Luckenbach line of intercoastal boats will hereafter call at New Orleans.

Move Lumber to Orient

Interest in the north Pacific charter market centers principally around the Oriental lumber situation. Effective July 1, the rate was raised from \$10 to \$12.50 and despite strong effort to break the conference level, exporters have been unsuccessful in obtaining concessions.

The trade has practically resigned itself to the higher rate and cargo is being booked in large volume at \$12.50. Not a few losses are being taken in some quarters where shippers booked in advance basing their business on space at \$11 or less. During the last month the westbound Pacific conference has been reorganized and the threats of a rate war have been dissipated. Under the new arrangement, three separate conferences are now in existence each working in harmony with the other. California operators are in one body, Columbia river in the second while Puget Sound and British Columbia lines are included in the northern conference. This plan leaves each

conference free to fix rates on cargo originating in its particular territory while the basis of rates on transcontinental freight booked for the Orient is arranged in conjunction with operators in New York.

During the last three months, millions of feet of lumber and forest products have been shipped from north coast ports to Japan and China on a basis of \$10. One nonconference member has taken lumber at this rate for the next three months but the conference lines are maintaining the advance and space is going rapidly. The demand from the Orient apparently has not eased off and steamship operators are already talking of making a \$15 rate effective in the near future. The shipping board is anxious for a higher rate as there is little profit, it is said, in moving lumber even at \$12.50.

Lumber rates for sailing vessels are depressed and owners in some instances prefer to keep their fleets idle. To South Africa, \$30 has been offered while to west coast South America \$18 is the offering rate, one Norwegian schooner having recently been taken on that basis.

Grain exporters are beginning to look to the new season's requirements and while foreign tonnage is offering for wheat north Pacific to United Kingdom at 56 shillings 6 pence, shipping board carriers are idle in port, the government rate remaining at 65 shillings. A spot government carrier was fixed at 65 shillings recently but that is well above the market, the high rate being based on the need of a spot ship for June loading. Already exporters have offered 55 shillings for August. Shipping board officials are inclined to hold firm on the theory that while tramp tonnage may take future business at lower rates, shipping board ships can obtain above the market for spot loading. The wheat rate to Japan remains firm at \$7.

Cut Rail Rates to Save Traffic

The marine strike created a demand for sailing vessels in the coastwise trade and \$10.50 is being offered for lumber to San Pedro. About \$12 is being paid for sailers to the Hawaiian islands where the call for north coast lumber is strong. The Pacific Steamship Co., operating between Seattle and California ports, announced a general reduction in freight rates effective early in July. The percentage of cut was not at once made public but the action was taken on the theory that general conditions justify a cut.

Recognition of the growing commerce by water between Atlantic and Pacific ports has been given by the railroads which announce sweeping reductions on many commodities from eastern industrial centers. Recently export and import rates through Pacific ports were announced by the rail carriers and all these concessions are expected to improve conditions at north coast centers. The intercoastal steamship lines are handling large cargoes the movement of some commodities having recently been stimulated by readjustments of rates by water.

Reports from Japan indicate improving financial and economic conditions and these statements are confirmed by the increasing cargoes being brought from the Orient.

Japanese lines have agreed to abide by the conference rates from the Atlantic ports to the Orient, but it is understood the Japanese have entered the Pacific coast grain trade and begun cutting the rates on that commodity from the Pacific to Europe. The coal

rates from Atlantic ports to Europe broke from 50 to 75 cents a ton on the news that the English coal strike had been broken, but even prior to that the charter rates on coal to Italy declined about the same amount on news that many foreign ships were on their way to Norfolk for cargoes.

Gulf Trade Holds Steady Course

Although the full cargo steamer market is reported to have been exceptionally active with chartering unusually brisk in the transatlantic coal trade and improvement is noted from the north Pacific coast with a considerable quantity of cotton booked from the Imperial valley of California, there has been no special change along the gulf coast. Wheat continues to move briskly to Greece, West Italy and Belgium, two gulf ports alone reporting an anticipated export of 10,000,000 bushels in June. Small lots of coal go forward to the West Indies. Sisal cargoes from Progreso are showing renewed activity and gulf ports which have not heretofore received this commodity are now handling cargo after cargo for rail shipment to interior points.

The fruit lines await with much interest the formal announcement of the plans of the Di Giorgio combine capitalized at \$20,000,000, the properties of which it is understood will embrace more than 80,000 acres in the United States, Cuba, Mexico, and Jamaica, including a number of canneries.

Active June quotations for grain from the gulf ports were: To Antwerp-Hamburg range, 30 cents one and 31 cents two ports, prompt; to West Italy 7 shillings 9 pence June 25, to Antwerp-Hamburg range 27½ cents per 100 pounds July. Among rates on miscellaneous cargoes no definite figures could be obtained, several charters from nearby ports being made on private terms.

In the sail tonnage market no new developments were noted, with trading practically at a standstill except for occasional coastwise cargoes of ties, lumber to Cuba and Porto Rico and asphalt from Trinidad to the gulf ports.

Rail Rate Changes Help Boston

Movement of freight through the port of Boston during June held practically constant both as to exports and imports, but early in July a decided improvement was noticeable due to the over-crowding of the port of Montreal, and to the action of Canadian railroads in placing Boston on a parity with the Canadian port for shipments of grain and some other commodities from western points. The effect of this action was almost immediately felt at Boston, for within a week freight which otherwise would have gone to Montreal, was being routed direct to Boston.

Overseas freight rates have not appreciably changed, nor is any change looked for during the summer, but Boston shippers are taking a more lively interest in rail rates than ever before. The interstate commerce commission has recently authorized carriers to publish rates of 21 cents per hundred pounds from Buffalo and 19½ cents from Rochester to Boston on flour for export when milled from ex-lake wheat. This is a reduction of 3 cents per hundred pounds and puts Boston on a par with Baltimore and Philadelphia on freight rates on flour.

Nearly all regular sailings from Boston have been maintained during the past month but few new serv-

Ocean Freight Rates

Per 100 Pounds Unless Otherwise Stated

Quotations Corrected to July 8, 1921, on Future Loadings

New York to	Grain	Provisions	Cotton (H.D.)	Flour	General Cargo cu. ft.	General Cargo 100 lbs.	††Finished steel	Coal from Virginia cities	From North Pacific Ports to	Lumber Per M. ft.
Liverpool.....	\$0.25	\$0.75	\$0.37½	\$0.30	\$0.45	\$0.85	\$8.00T	.....	San Francisco.....	\$ 7.50
London.....	0.25	0.75	0.37½	0.30	0.45	0.85	8.00T	.....	South California.....	8.50
Christiania.....	0.30	0.50	0.72½	0.35	0.55	1.00	10.00T	\$6.00T	Hawaiian Islands.....	15.00
Copenhagen.....	0.30	0.50	0.72½	0.35	0.55	1.00	10.00T	6.00T	New Zealand.....	20.00
Hamburg.....	0.25	0.55	0.50	0.20	0.45	0.82½	9.00T	5.25T	Sydney.....	20.00
Bremen.....	0.25	0.55	0.50	0.30	0.45	0.82½	9.00T	5.25T	Melbourne-Adelaide.....	25.00
Rotterdam.....	0.22½	0.50	0.60	0.35	0.40	0.75	8.00T	4.75T	Oriental ports.....	12.50
Antwerp.....	0.22½	0.50	0.55	0.27½	0.40	0.75	8.00T	4.75T	Peru-Chile.....	18.00 to 20.00
Havre.....	0.22½	0.50	0.35	0.27½	0.40	0.75	8.00T	5.25T	South Africa.....	27.00 to 30.00
Bordeaux.....	0.22½	0.50	0.35	0.27½	0.40	0.75	8.00T	5.25T	Cuba.....	20.00
Barcelona.....	0.27½	20.00T	0.57½	0.65	—20.00T—	—	16.00T	5.75T	United Kingdom.....	175s
Lisbon.....	0.27½	20.00T	0.82½	0.65	—20.00T—	—	16.00T	5.50T	United Kingdom (ties).....	150s
Marseilles.....	0.27½	0.75	0.75	0.40	—20.00T—	—	10.00T	5.75T	New York.....	\$20.00
Genoa.....	0.30	0.75	0.75	0.50	0.50	1.00	9.00T	5.75T	New York (ties).....	18.00
Naples.....	0.30	0.75	0.75	0.50	0.50	1.00	9.00T	5.75T		
Constantinople.....	0.26	12.00T	0.75	0.31	—22.00T—	—	15.00T	6.75T		
Alexandria.....	0.26	12.00T	0.75	0.31	—22.00T—	—	15.00T	6.75T		
Algiers.....	0.35	0.85	.....	0.40	—22.00T—	—	12.00T	5.75T		
Dakar.....	.....	23.00T	.....	23.00T	—23.00T—	—	20.00T	.....	
Capetown.....	20.00T	23.00T	23.00T	20.00T	—23.00T—	—	15.00T	.....	
Buenos Aires.....	.....	.....	.....	.....	—20.00T—†	—	12.00T†	4.50T		
Rio de Janeiro.....	.....	.....	.....	.....	—22.50T—†	—	16.50T†	4.50T		
Pernambuco.....	.....	.....	.....	.....	—23.50T—†	—	17.50T†	4.75T		
Havana.....	0.44½*	0.50*	.....	0.44½*	0.47*	0.94*	0.44½*	2.25T		
Vera Cruz.....	.....	0.70	.....	0.45	0.45	0.90	0.60	3.25T		
Valparaiso.....	.....	1.25	1.16	1.00	0.40	1.25	16.00T	5.50T		
San Francisco.....	.....	0.75	.....	0.85	.....	.....	0.75	.....	
Sydney.....	.....	.....	.....	.....	25.00	30.00T	15.00T	.....	
Calcutta.....	.....	21.00T	.....	.....	—21.00T—	—	18.00T	.....	
T—ton	†Landed	††Heavy products limited in length.					*Extra charge for wharfage.			

Principal Rates To and From United Kingdom

Grain, River Plate to United Kingdom.....	41	3	Coal, South Wales to Buenos Aires.....	17	d
Coal, South Wales to Near East.....	21	0	Iron ore, Bilbao to Middlesbrough.....	7	6
Coal, Newcastle to France.....	7	0	General British market, six months time charters, per ton per month.....	6	0

Bunker Prices

At New York			At Philadelphia		
Coal	Fuel oil	Diesel oil	Coal	Fuel oil	Diesel oil
Alongside per ton	16 baume per barrel	gravity 25-30 per gallon	per ton	16 baume per barrel	gravity 25-30 per gallon
Jan. 8.....	\$7.00	\$2.94	Jan. 10.....	\$9.45	.....
Feb. 5.....	5.40 @ 6.80	2.50	Feb. 8.....	8.40	2.31
Mar. 7.....	5.25 @ 6.75	2.35	Mar. 7.....	7.60	2.10
Apr. 6.....	6.40 @ 6.75	1.95	Apr. 7.....	5.75 @ 6.00	1.98
May 7.....	6.35 @ 6.50	1.85	May 10.....	5.50 @ 5.90	1.68
June 3.....	6.00 @ 6.30	1.70	June 8.....	5.65 @ 5.90	1.89
July 8.....	5.75 @ 6.25	1.45	July 7.....	4.90 @ 5.45	1.47½

ices have been inaugurated. The steamer EASTERN BELLE left Boston for Limerick, Cork and Dublin on a trial of what is promised to be a permanent service, if freight offerings justify. Rogers & Webb, Boston, have succeeded in inducing the firm of Moore & McCormack, of New York, to include the port of Boston on certain lines sailing from New York.

Activity at the port of Portland, Me., has been without feature since the loss of its winter grain trade. Exports have shown little variation during the past month, and imports have slightly dropped off. An extension to service out of Portland was made when that port was added as a point of call for the steamers DEWEL, MERCER VICTORY and MERRYMOUNT sailing from Montreal to Rotterdam, Antwerp and Ham-

burg. Exports at Boston continue to be made up largely of New England manufactured goods, western grain and miscellaneous cargo. Shoes, canned fish, and flour formed the chief cargo on a recent sailing to Greece.

Plumbing and heating supplies, and rope, hardware and machinery have been the principal items in recent exports to Halifax, and other Canadian points. Machinery, produce, and cattle have been prominent in shipments to England. A recent sailing to Copenhagen took 140,000 bushels of corn. Generally speaking, however, commodities continue to follow the usual lines. The future for the port during late summer and fall looks relatively bright considering the national depression.

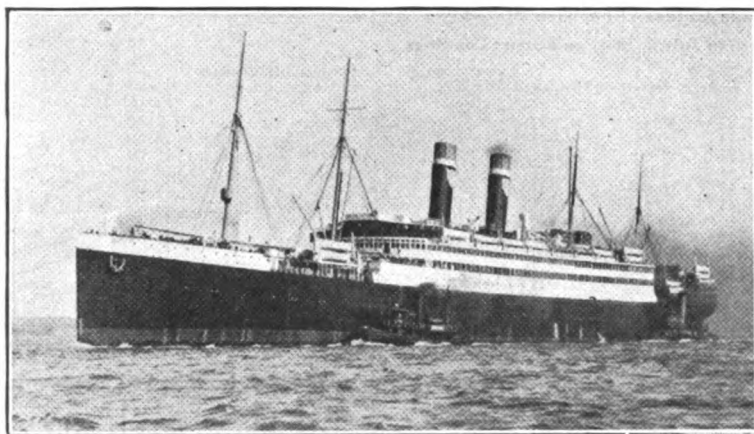
Better Tone in English Ship Market

From Our European Manager

London, July 11 (By cable).—The charter market is more buoyant although inquiry is mostly for smaller boats for trade with the Near East. Demand for tonnage in the Oriental route is steady. The Plate run is over-supplied with tonnage with the result that quotations on grain have dropped

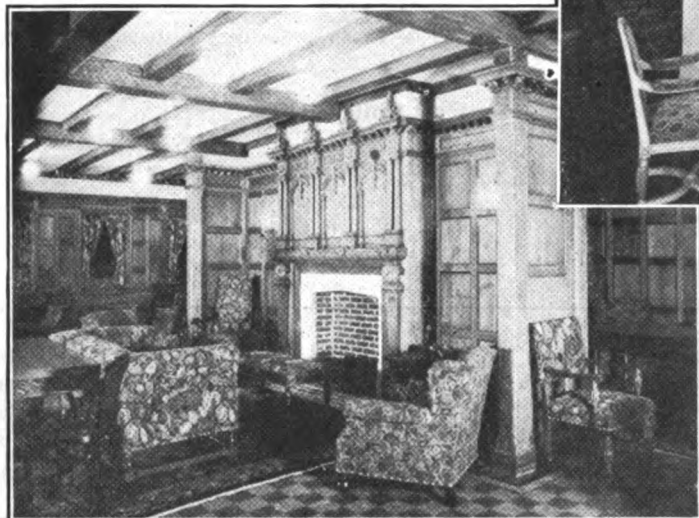
during the month from 55s to 41s 3d. Settlement of the national coal strike has released fuel for export and this trade is now gaining strength. Ship prices continue at the lowest figure in years, new steamers bringing £8 10s, while 2-year old vessels have gone for £6 15s.

Photographs from Far and Near



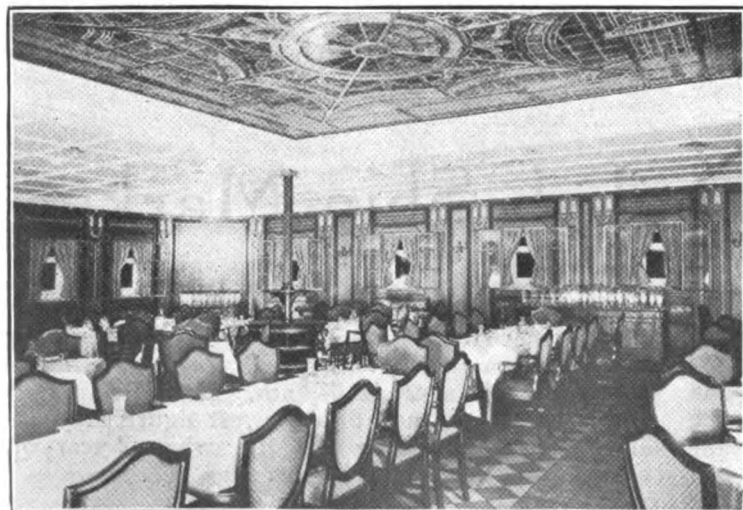
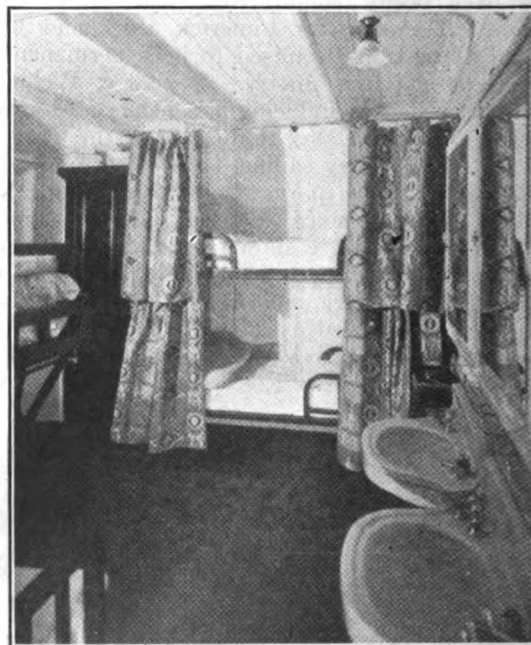
America, the giant liner of the United States Mail Steamship Co., was converted from a troop transport into a first-class passenger vessel in the remarkably short time of a little more than two months. The America is here shown leaving the yard of the Morse Dry Dock & Repair Co., Brooklyn.

The social hall on the America is done in green and white lattice work, a transformation from the appearance of this "cabin" when the America was a troopship.



One of the most luxurious rooms on the America is this delightfully comfortable and attractive lounge, with fireplace.

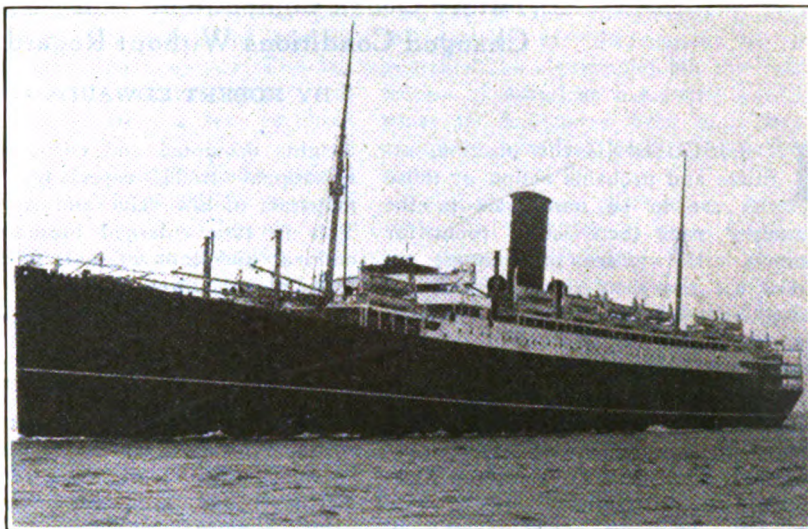
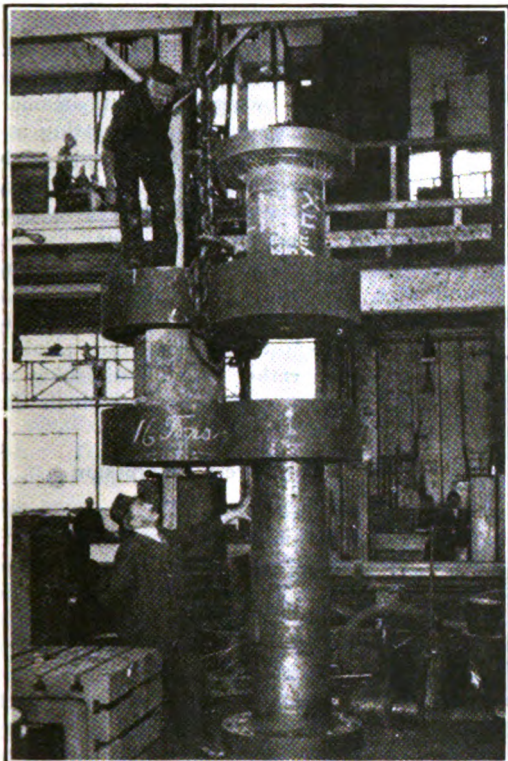
The staterooms on the America have been completely renovated and equipped with beautiful furnishings.



The Ritz Carlton dining room, decorated in maroon and gold, reflects the elegance and good taste which is a conspicuous feature of the living quarters aboard the liner.

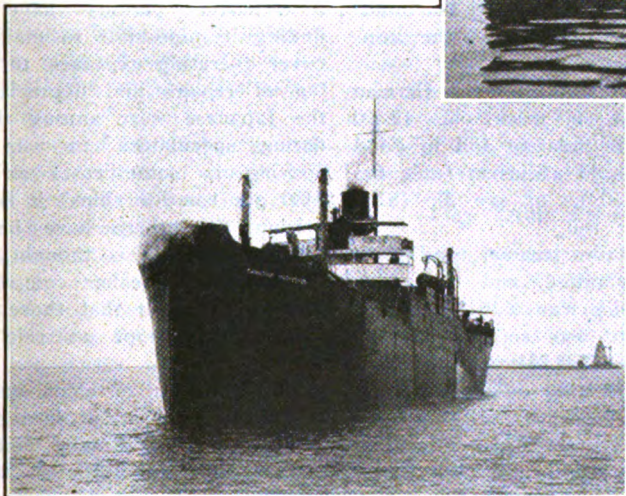
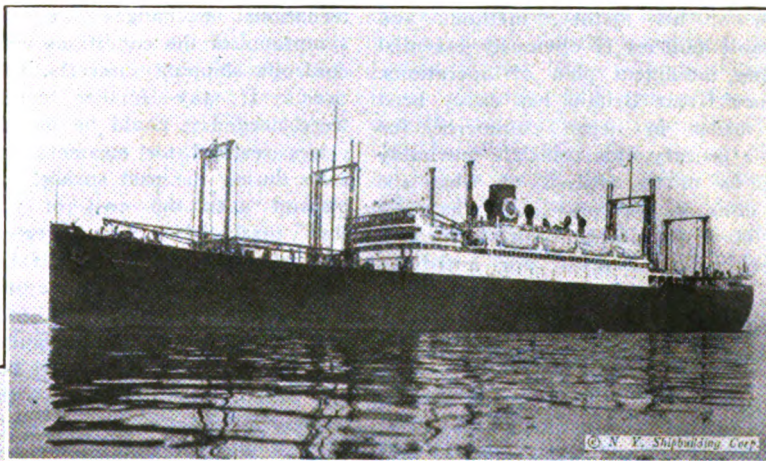
Latest Marine News in Pictures

This huge crankshaft of the America was fitted with a new journal in the machine shop of the Morse Dry Dock & Repair Co. in three hours and 20 minutes.



The Anchor liner Cameronia was the first large British passenger ship to be laid down and floated after the armistice, and her launching in the remarkably short period of nine and a half months from the laying of the keel constituted a record in British shipbuilding. She was built by Messrs. William Beardmore & Co., Dalmuir, and is 16,500 tons gross.

Canadian shipbuilders are rapidly completing their contracts and turning out some remarkably fine boats. The Canadian Harvester was built at Port Arthur.



The Keystone State, shown above, was recently placed in transpacific service by the Pacific Steamship Co. She is one of nine similarly designed 21,200-ton passenger liners ordered for the United States shipping board from the New York Shipbuilding Corp. She was the first liner launched from the company's new South yard. Her length is 535 feet, and beam, 72 feet.

With her bow stove in by a huge iceberg near Newfoundland the shipping board's Charlot, Philadelphia for London and Hamburg, made St. Johns, N. F., under her own steam, arriving there early in June. She was leaking in hold No. 2, but favorable weather assisted her in making port.



Practical U. S. Ship Problems-IV

Future Ocean Competition Will Be Accommodated to Changed Conditions Without Regard for Past Policies

BY ROBERT EDWARDS ANNIN

IN DISCUSSING the position, attitude and probable action of those who are to be our rivals in the carrying trade there is no room for animus. If we are to compete we must use every advantage which we have, and can not object if others do the same. To Great Britain, Scandinavia and Japan foreign trade is even more important than to the United States, with her vast natural resources, and immense interstate system of free trade. To complain when others employ methods such as we assuredly shall claim the right to use in our own behalf, is not only unsportsmanlike but inconsistent and futile.

When estimating the chances of success in any competition, it is always wise to study the career of the ablest and most successful rival. A knowledge of his history, methods and probable policies is obviously essential to any intelligent plan of operations.

Since Great Britain has easily been the leader in ocean commerce for over a century, this principle inevitably leads us to an analysis of what she has done in the past and what she may do in the future. Such a method is neither pro-English nor anti-English. The discussion can be and should be absolutely free from all prejudice.

New Kind of Competition

In June, 1920, the commercial fleet of the world was estimated at about 55 millions of deadweight tons, 13 millions of which were under the American flag and engaged in deep sea business. This is said to be about 11 million tons increase over 1913.

But in 1913 international traffic was normal; labor was comparatively stable; and the chief mercantile nations were in healthy position as to industries, currencies and credits.

These conditions made for a facile exchange of commodities, and an easy settlement of balances through the ordinary processes of exchange. True, freights were low but all factors which go to fix the freight level were also low. Hence efficient ships could be run at a small profit to owners, even at rates yielding not more than one-half the revenue of those now prevailing, and which now barely cover cost of operation—if that.

Furthermore, the then level of

freights promoted and encouraged international trade, especially in raw materials of low value and large bulk. This in turn enlarged business, both national and international, in the articles manufactured therefrom.

It is not necessary to detail the contrast in conditions now prevailing.

Effects of Idle Tonnage

Of the present total tonnage of the world, nearly 10 millions are said to be idle which about represents the increase since 1913. Comparison of values in imports and exports is most misleading, owing to the worldwide change in price levels; nor are any reliable figures available as to comparative weights and bulks. But the progressive laying up of vessels; the failures and dissolutions among shipping firms, and the distortion of international exchanges are conclusive symptoms of the conditions which now confront shipping interests, the world over. If any further confirmation were needed it could be found in the prices realized for steamers at forced sales during the past spring; and comparison with the cost of the ships thus marketed. Some were pushed on the market by the financial necessities of their owners; some were disposed of "at best" as the most economical course possible, and others have been sold at auction by the builders because of default by the contracting buyers.

To illustrate, the ex-German SCHWARTZENFELS, 6 years old, 12,300 tons deadweight capacity and in good condition was sold at private sale for £62,500 (\$237,500), or say £5 (\$19) per deadweight ton.

A new 5500-ton steamer on which buyers had defaulted, and on which the contract price was £30 (\$114) per deadweight ton, was sold at auction at about £7 6s (\$27.75) per ton; or a loss to the defaulting owner of about £125,000 (\$475,000).

These are but two of many instances typical of the losses now being suffered by unfortunate owners. Yet, in view of high labor costs in the United Kingdom it is asserted on good authority that builders can not contract at less than £20 (\$76) per deadweight ton with any hope of profit. Decline in values of British tonnage is computed, on the basis of recent

transactions, at about from 70 to 80 per cent as compared with March, 1920.

As to depreciation such figures are conclusive. As to operating costs, one British owner of eight steamers remarked that four were operating and four idle; and that the whole eight would soon be laid up, since operation had proved more expensive than lay-up. Another prominent English authority estimates the amount of tonnage now idle at over 10 million deadweight tons. It is a matter of common knowledge that this total is increasing rather than diminishing as the months roll by. So much for the situation in England.

Japan Feels Depression

A recent letter from Japan gives no rosier picture of conditions there. A correspondent states under date of May 17 "the continued depression in ocean trade is adding to the large number of ships out of service. The present total of Japan's mercantile fleet is about 3,000,000 tons of which 240,000 tons or 8 per cent is already tied up."

Further details dwell upon time charters of small steamers offered at 3 yen or \$1.50 per ton per month; and owners who are retiring their ships from service as soon as their time-charter periods have expired, finding it impossible to make revenue cover operating expenses, to say nothing of repairs and depreciation. As the Japanese were among the most daring speculators in war tonnage (paying in some cases as high as \$400 per ton for ships) it is not surprising that there have been many bankruptcies. It is thought, however, now that the weaker companies have been weeded out that those who still survive may hope to ride out the storm.

The situation of ships under these two flags gives a fair idea of general conditions, the English having the largest fleet and trade in the world, and the Japanese having great advantages in the matter which has been so great a factor in England's shipping difficulties—labor—afloat and ashore. But among the maritime nations of the old continent the same story is told; even of Norway which with low wages and low exchange is

now the cheapest operator of all the large shipowning nations.

The existence of the idle ships hanging always over the market, might alone be enough to hold freights at or below present levels, until the markets of the world should again approach normal.

But there is still the American fleet to be reckoned with. No one appears to know just how much tonnage is now tied up, but it is current talk that the idle steel tonnage of the shipping board is in excess of 3,000,000 tons deadweight. There have been a few ships restored to service during the English coal strike, but this activity is not due to normal trade causes; is very temporary; and must in the end react as a depressant rather than a stimulant; thus eventually making the contest for cargoes even keener.

England's Coal Problem

In this connection, another thought is worthy of a moment's consideration. The bitter struggle of the English miners, the loss of trade and prestige, and the amazing spectacle of America shipping cargo after cargo of coal to the United Kingdom—(literally sending "coals to Newcastle") must raise the question whether the British marine is not about to suffer the loss of what has heretofore been its backbone, that is, an almost undisputed supremacy in the export coal and bunkering trade. The importance of this traffic lay in the fact that, being a large importer of bulky raw materials of low value, England's exports were mainly of manufactures of relatively high value and small bulk. Hence her inward and outward tonnage would have been out of balance unless bulky outward cargo could be supplied to fill the surplus (outward) capacity.

The low prices of her seaboard coal gave her a ballast cargo to utilize this surplus and put her in essential control of the bunkering stations of the world. These low prices were based almost entirely on low labor costs. The mines themselves are far deeper and more laborious to work than our own; and low wages were, therefore, a necessity.

The English coal strike is just over, and it will be long before any proper estimate can be made as to its full effect on the future of England's export trade. But it is even now certain that the era of very low miners' wages has gone, and it is possible that enhanced cost, due to advanced wages will greatly reduce the advantage which British coal has previously enjoyed. Should this be so, the effect would be far reaching as

to all English industries. It would certainly increase the cost of ship operation by enhancing the price of bunkers; reduce revenue in proportion to the reduction of exports, and might impair the control of bunkers which England has enjoyed. The importance of this last contingency will become evident from a few pertinent figures.

According to United States official statistics, out of 80,000,000 tons of coal used for bunkers under old conditions Great Britain supplied 60,000,000 and her colonies 5,000,000. Of 181 listed coaling stations, 40 per cent were British and a large additional number under British control. As to strategic location of stations, for either peace or war, the British held an advantage over all others.

Now should the British command of this balance wheel of her trade be impaired or seriously threatened it is hardly to be questioned that the new conditions would be met by drastic revisions of policy. For the sea lanes have the same importance to the prosperity of the British empire that our own transcontinental and interstate lines have to our own welfare. More than that, the bases of England's whole commercial system have been cheap power (coal) and cheap wages. The effects of a radical change in these conditions would be so far reaching as to discourage any attempt to forecast them.

Many of those who have spoken rather lightly about driving the English from the seas have not stopped to consider that the success of this somewhat formidable attempt would drive the British empire from the earth. Geography, economics, and sociology (to say nothing of politics) compel that empire to protect and maintain her sea commerce if it can be done. To achieve this end, no sacrifice will be too great, nor any promising method left untried.

May Drop Free Trade

We have for years been accustomed to assume—(tacitly, perhaps,—but our whole politico-economic thought seems to have been colored by the assumption)—that, whatever the conditions, or whatever the policies of her competitors, Great Britain is too firmly wedded to the *laissez faire* policies of the Manchester school to ever abandon them. There can be no greater fallacy. The policies of Peel, Cobden, Bright and Gladstone were maintained because their advocates were able to demonstrate that conditions demanded them; and results for many years proved their wisdom. They were adopted as policies—not as principles—as measures that met specific con-

ditions and not as fundamentals applicable to all conditions—which is about the difference between a principle and a policy. To illustrate; the founders of this government asserted the doctrine of "the consent of the governed" as a principle; but the "protection of American industries" (or its converse) has never been more than a policy; whatever orators might assert.

To apply these observations to the subject in hand, for 70 years England has pursued a notably liberal policy as to free imports and free sea competition. This she could afford, for no competitor seriously threatened her supremacy in either carrying trade or trade with her dominions and dependencies. It seems possible that today either or both may be in jeopardy. If her general wage level is to be changed to her relative disadvantage; if her cheaper coal be a thing of the past; if her sea dominion is to be seriously menaced (either in peace or war) her whole economic position is taken in reverse, and drastic changes in policy will follow. They must.

All measures and policies which are at the command of her potential rivals are at hers. Protective tariffs, discriminating duties, hostile navigation laws, reciprocal tax laws with her dominions, subsidies and subventions, or outright government ownership of ships or industries, are all as likely in Britain as in any other country; provided they are rendered desirable as either offensive or defensive weapons in trade.

How English Pull Together

That policies may be reversed with great promptitude was illustrated during June.

The backbone of the American freight market during May and June was the export demand for coal for the ports of the United Kingdom; and for the first urgent demand English buyers were inclined to accept suitable ships at the market irrespective of flag. Early in June, however, (the most urgent needs being then provided for,) there came a change. The chartering market remained active but the business was done through British agents and the demand for American tonnage to the United Kingdom abruptly ceased. During that week, this business was shifted to London where a large number of charters were made.

Whether the inspiration came from government circles or not it was evident that English interests were acting in concert for the protection of British ships and agents, as they had a natural inclination, as well as per-

(Concluded on Page 374)

Late Flashes On Marine Disasters

Brief Summaries of Recent Maritime Casualties—
A Record of Collisions, Wrecks, Fires and Losses

NAME OF VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING	NAME OF VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING
Adamello	May 19	Struck shoal	Cape Rizzuto	Slight	Gothic Star	June 13	Struck quay wall	Liverpool	Damaged stern
Admiral Codrington	May 24	Disabled	Auckland	Forepeak damaged	Gladys M. Hollett	June 25	Disabled	Martinique	Leaking
Aniwa	May 29	Disabled	Montevideo	Eng. trouble	Gloria De Larrinaga	June 24	Grounded	Bremerhaven Roads	Not stated
Artemis	June 6	Disabled	Santiago	Shaft broke	Glenisla	June 20	Disabled	Upper lake port	Rudder damaged
Alaska	June 6	Fire	San Francisco	Slight					
Astrid	June 13	Struck iceberg	At sea	Hole in bow					
Absirtea	June 16	Grounded	Cape Henry	Slight	Horatio G. Foss	June 4	Disabled	Diamond Shoals Lightship	Leaking
Antium	June 6	Disabled	Gibraltar	Eng. trouble	Harvester	June 8	Missing	At sea	Not stated
Arfeld	June 13	Disabled	Brunsbüttelkoog	Lost anchor	Hamlin	May 29	Fire	Ferrol	Unknown
Arturo	June 10	Fire	Lucia Lighthouse	Not stated	Hico	June 9	Fire	Frying Pan Shoals	Not stated
Australmead	June 13	Disabled	At sea	Mach. trouble	Helen Mathers	June 25	Ashore	Freeport	Not stated
					Helen Euphane	June 27	Disabled	Norfolk	Prop. gone
Ada	June 29	Disabled	Boston	Explosion	Hanley	June 25	Disabled	Gibraltar	Prop. blade lost
August Ziesing	June 23	Disabled	Toledo	Rudder damaged					
Admiral Evans	June 18	Disabled	Crescent City	Mach. trouble	Harry Luckenbach	June 24	Disabled	San Pedro	Eng. trouble
Agawam	June 17	Disabled	Norfolk	Eng. trouble	Herbert G. Wylie	July 2	Disabled	Jacksonville	Boil. trouble
Admiral Sebree	June 19	Disabled	San Francisco	Condenser	Henry Phipps	June 16	Collision	Eagle Harbor, Lake Superior	Plates damaged
Anna R. Heidritter	June 30	Disabled	New York	Not stated					
A. C. Bedford	June 30	Disabled	New York	Steerer trouble					
Alloway	July 1	Fire	New York	Slight	Ignazio Florio	May 30	Disabled	Ponta Delgada	Steerer trouble
Brei	May 27	Struck pier	Avonmouth	Stanchions	Indo Maru	June 8	Collision	Malacca Strait	Considerable
Bouboulina	June 10	Sunk	Agean	Total loss					
Buckeye State	June 11	Fire	Off Annapolis	Not stated	Iris	June 18	Collision	San Francisco	Slight
Baron Cawdor	June 11	Disabled	At sea	Engine trouble	Iroquois	June 26	Disabled	Chicago	Mach. damaged
Bronx	June 27	Collision	St. George	Considerable					
Boston	June 16	Collision	Lake Superior	Not stated	J. S. Emery	June 20	Collision	Mobile	Jibboom broke
Canadian Inventor	June 6	In distress	Victoria	Not stated	Jessie C. Barber	June 14	Stranded	Aranas	Jettis. cargo
Continental Bridge	June 5	Disabled	Norfolk	Pump trouble	Korean Prince	June 2	Collision	Port Eads	Slight
Cushnet	June 11	Disabled	At sea	Lost prop. blade	Kangaroo	May 24	Disabled	Malta	Crankshaft broke
Canadian Trader	May 26	Fire	St. John, NB	To cargo	Kanawha	June 13	Disabled	Kingston	Eng. trouble
Carignano	May 30	Fire	Dunkirk	To cargo	Kennebec	June 18	Sunk	Barnegat	Total loss
Caroline Maru	May 27	Disabled	At sea	Eng. trouble					
Carplaka	June 10	Disabled	Halifax	Not stated	Lord Harrington	June 13	Disabled	Falmouth	Lost prop. blade
Comerant	June 9	Fire	St. Michaels	Not stated	Layetana	June 11	Sunk	Faro	Total loss
Charlot	June 8	Struck iceberg	Off Newfoundland	Heavy	Le Coq	May 26	Around	River Seine	Slight
Clavarack	June 9	Disabled	Sand Key	Boil. trouble	Lincoln	June 23	Leaking	New York	Not stated
Calvert	June 11	Disabled	South Pass	Mach. trouble	Lake Ellenorah	June 24	Disabled	Boston	Boil. trouble
Charlotte Comeau	June 8	Disabled	St. Thomas	Leaking	Liberty Land	June 25	Disabled	Charleston	Not stated
Carplake	June 17	Disabled	St. John's N. F.	Mach. trouble	Laramie	June 20	Collision	Mobile	Not stated
City of Omaha	June 21	Fire	New York	Not stated	Manchester	June 1	Grounded	Green Bay	Not stated
Comal	June 22	Disabled	New York	Eng. trouble	Mount Hamilton	June 4	Fire	Fowey Rocks	Total loss
City of Eureka	June 23	Ashore	Seven Foot Knoll	Not stated	Mount Vernon Bridge	June 7	Disabled	St. Johns N. F.	Pump trouble
Conotton	June 23	Collision	At sea	Not stated					
City of Elwood	June 19	Disabled	Charleston	Mach. trouble	Muljua	May 23	Disabled	Guam	Boil. trouble
Clarksburg	June 24	Disabled	London	Mach. trouble	MacMahon	May 23	Disabled	Bahia	Masts strained
Chas. Racine	June 25	Disabled	At sea	Lost mast					
Carventum	June 25	Disabled	Gibraltar	Pump trouble	Maiden Creek	June 11	Disabled	St. John, NF	Mach. trouble
Clairton	June 25	Disabled	Chesapeake Bay	Steerer trouble	Mercer Victory	June 10	Disabled	Southampton	Turbine trouble
City of Rockland	June 20	Disabled	Bath	Shaft broke	Meteor	June 10	Collision	Barnegat	Bow damaged
Celeste D.	June 26	Fire	Off Mosquito Inlet	Total loss	Marinula	June 11	Collision	Rotterdam	Not stated
Chattanooga	June 29	Collision	At sea	Unknown	Mindello	June 10	Collision	London	Hull
Chattanooga	July 4	Disabled	At sea	Boil. trouble	M. J. Scanlon	June 19	Disabled	At sea	Eng. & boil.
					Mopang	June 30	Struck mine	Bourgas	Total loss
Daniel Webster	June 2	Collision	New Orleans	Stem bent	Marshall Foch	July 1	Fire	Gloucester	To cabin
Douglas Adams	May 30	Missing	At sea	Not stated	Maid of Chos	July 5	Disabled	Portland	Steerer broke
Drammenseren	May 20	Disabled	Bergen	Not stated					
Dannedaikie	June 14	Disabled	Delaware Capes	Pump trouble	Munabro	July 3	Collision	Gay Head	Slight
Deranof	June 29	Collision	Broad Sound	Hull	M. E. Farr	June 29	Disabled	Superior	Rudder dam
Edith	May 23	Disabled	Sabine Pass	Pumps—leaking	Newport	June 10	Collision	Tompkinsville	Bowsprit broken
Elizabeth Ruth	June 6	Collision	Near Havana	Bow damaged	Navarchos Koundouriotis	June 11	Fire and sank	Salonica	Considerable
Eastern Exporter	June 9	Disabled	St. Michaels	Boil. trouble					
Emelis	June 10	Collision	Tompkinsville	Hull	Nord African	June 19	Ashore	Cape Lookout	Not stated
East Port	June 13	Disabled	St. Michaels	Mach. trouble	Noorderdijk	June 18	Collision	San Francisco	Not stated
Esperanto	June 20	Disabled	Sable Island	Not stated					
Edgefield	June 16	Disabled	Tampa	Not stated	Olen	June 6	Disabled	Constantinople	Cylinder damaged
Exlantier	June 25	Fire	New York	Considerable	Orduna	June 7	Water in forepeak	At sea	Not stated
Elmer E. Gray	June 29	Ashore	Off Grover Cliff	Leaking	Oranje Nassau	May 22	Lost anchor	Rotterdam	Not stated
Esperanto	June 28	Sunk	Halifax	Total loss	Oude Maas	May 27	Grounded	Punta Mangle	Unknown
Eastern Importer	June 26	Disabled	Honolulu	Boil. trouble	Ozette	June 21	Broken down	Near Halifax	Steerer dam.
Edward A. Cohan	June 30	Fire	Pascagoula	Not stated	Olen	June 26	Disabled	Cadiz	Dam. cylinder
Finlandia	May 22	Grounded	Palingplatt	Not stated					
Fitzroy	June 26	Foundered	Cape Hawk	Not stated	Omaha	June 20	Fire	New York	Not stated
Falmouth	June 23	Grounded	East Boston	Not stated	Oriole	June 20	Disabled	Below New Orleans	Leaking
Glendale	May 31	Ashore	Tees	Not stated	Olympia	June 16	Struck rocks	Azores	Not stated
George Washington	June 15	Fire	New York	Considerable					
					Pilsna	May 24	Fire	Venice	To cargo
					Pocahontas	June 3	Struck wharf	Boston	To stern rail
					Palisades	June 10	Grounded	Cape Henry	Not stated
					Phoenix Bridge	June 8	Ashore	Gibraltar	Not stated
					Panhandle State	June 15	Explosion	London	Generator

Late Flashes On Marine Disasters

Brief Summaries of Recent Maritime Casualties—
A Record of Collisions, Wrecks, Fires and Losses

NAME OF VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING	NAME OF VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING
Pocahontas	June 18	Disabled	St. Michaels, the Azores	Eng., boil. trouble	Tashmoo	May 30	Grounded	Copenhagen	Slight
Polar Bear	June 21	Fire	New York	Not stated	Topa Topa	June 1	Disabled	Colombo	Eng. trouble
Providence	June 21	Collision	Marseilles	Not stated	Tilemachos	May 28	Disabled	Sulina	Rudder, damaged
Pembrokeshire	June 10	Not stated	near Durban	Slight	Tainu	June 9	Collision	Lamberts Point	Not stated
Percy R. Pyne II	June 15	Disabled	Cape Henry	Not stated	Tiburn	June 9	Disabled	New York	Broke masts
Pinellas	June 15	Fire	Charleston	Not stated	Tirreo	June 6	Fire	Venice	Considerable
Polarine	June 27	Collision	St. George	Undamaged	Truxton	June 13	Disabled	Galveston	Prop. lost
Quillwark	June 8	Disabled	Norfolk	Oil trouble	Viola	June 23	Collision	East Boston	Not stated
Queen	June 18	Disabled	Umpqua River	Mach. trouble	Ville De Belfort	June 10	Collided	London	Not stated
Ranger	June 2	Collision	Port Eads	Slight	Virginia	June 13	Struck locks	Port Arthur Canal	Considerable
Rius Y. Taulet	May 23	Fire	Bilbao	To cargo	Wm. H. Draper	June 4	Ashore	Gay Head	Not stated
Ramore Head	June 10	Grounded	Cork	Not stated	West Cahokia	June 4	Disabled	Ar sea	Guide broke
R408 Texas	June 9	Disabled	Bermuda	Not stated	Winyah	May 31	Disabled	Shanghai	No. 3 hold leak
Richmond	June 18	Ashore	Greenville Channel	Not stated	Wenatchee	June 8	Disabled	Moji	Eng. trouble
Rowland H. Wilcox	June 30	On reef	Rose Island	Not stated	West Totant	June 7	Disabled	Norfolk	Condenser trouble
Rona	July 5	Ashore	.....	Slight	Waterbury	June 13	Disabled	East of Cape Henry	Pressure valve
Shickshinny	June 6	Disabled	At sea	Boil. leak	West Harcuvar	June 8	Disabled	Halifax	Valves
Szterenyi	June 2	Collision	New Orleans	Unknown	Willimantic	June 15	Disabled	Boston	Leaking
Seapool	June 7	Struck iceberg	Off Newfoundland	Bow damaged	Walter Jennings	June 10	Collision	Barneгат	Condenser trouble
S. B. Hunt	June 13	Disabled	New York	Pump trouble	Wm. H. Smith	June 16	.....	Iquique	Slight
St. Louis	May 26	Grounded	Guayaquil River	Not stated	Wathena	June 6	Aground	Montreal	Not stated
Soestdyk	June 9	Collision	Lamberts Point	Slight	Western Comet	June 17	Aground	Hawkins Point	Slight
Sir Francis	June 7	Wrecked	Cape Corrientes	Total loss	Wm. H. Doheny	June 22	Disabled	Near Galveston	Lost
Silver State	June 6	Collision	Near Havana	Not stated	Whiteson	June 23	Collision	At sea	propeller
Scanlon	June 11	Disabled	West of Falmouth	Boil., Eng.	West Harcuvar	June 23	Disabled	Halifax	Considerable
S. B. Hunt	June 11	Disabled	Ambrose Channel	Not stated	Western Wave	June 29	Disabled	St. Michaels	Gear trouble
Suwied	June 20	Disabled	At sea	Eng. feed pumps	West Raritan	June 26	Disabled	Norfolk	Pump trouble
Summerleaf	June 20	Disabled	Halifax	Eng. trouble	West Eagle	June 11	Fire	Buenos Aires	Eng. trouble
Susie D.	June 23	Sunk	East Boston	Considerable	Western Glen	June 23	Disabled	Rotterdam	Unknown
Sunpath	June 7	Grounded	Port Natal	Bottom damaged	Western Knight	June 30	Disabled	Kingston	Pump broke
Sagua	June 29	Collision	Broad Sound	Considerable	Walter A. Luckenbach	June 29	Disabled	Gravesend Bay	Boil. trouble
Sawokla	June 25	Disabled	Gibraltar	Steerer trouble	West Tokus	June 24	Disabled	At sea	Not stated
Steel Trader	June 25	Disabled	Gibraltar	Boil. trouble	Whiteway	July 3	Collision	Gay Head	Boil. trouble
Saccarappa	July 3	Disabled	Halifax	Boil. trouble	Walhall	July 4	Disabled	Pensacola	Heavy
Sarnian	June 18	Disabled	Mackinaw	Prop. broke	Wm. H. Wolf	June 19	Struck dock	Sandusky	Eng. trouble
					Yokohama Maru	June 8	Collision	Malacca Strait	Hole in bow
									Stem, plates broken

Marine Business Statistics Condensed

Soo Canal Report

The total movement of freight through the Soo canal in June was 8,079,476 net tons, a decrease of 2,568,343 net tons when compared with shipments for June of last year of 10,647,819 net tons. Last month's shipments are 281,356 net tons behind the movement for June, 1915, which month was the lowest for a like period in the last seven years. The tonnage comparison figures for the past seven years follow:

	Net tons
June, 1921	8,079,476
June, 1920	10,647,819
June, 1919	11,219,416
June, 1918	11,999,320
June, 1917	13,225,163
June, 1916	12,960,469
June, 1915	8,360,832

Of the total freight carried in June, 7,862,755 tons were handled through the United States canal while 216,721 tons passed through the Canadian canal.

The following tabulation gives the figures in detail for 1921 and 1920.

EASTBOUND			
	To July 1, 1921	To July 1, 1920	
Lumber, M. ft. B. M.	55,073	50,908	
Flour, barrels	2,099,110	1,741,431	
Wheat, bushels	31,620,728	23,748,731	
Grain, bushels	31,209,229	20,989,928	
Copper, net tons	6,810	7,721	
Iron ore, net tons	6,640,152	15,553,800	
Pig iron, net tons	526		
Stone, net tons	6,175	25,025	
General merchandise, net tons	15,716	18,358	
Passengers, number	5,129	4,680	
WESTBOUND			
Coal, soft, net tons	5,589,834	1,548,588	
Coal, hard, net tons	571,543	483,020	
Iron ore, net tons		39,760	
Mild. iron and steel, net tons	7,928	23,728	
Salt, net tons	20,054	29,996	
Oil, net tons	163,933	94,766	
Stone, net tons	133,853	148,361	
General merchandise, net tons	150,153	145,573	
Passengers, number	4,916	5,484	
SUMMARY			
Vessel passages, number	3,705	5,179	
Registered tonnage, net..	9,190,950	16,084,186	
Freight —			
Eastbound, net tons....	8,554,352	17,092,446	
Westbound, net tons....	6,637,318	2,513,792	
Total freight, net tons.	15,191,670	19,606,238	

Lake Michigan Receipts

Receipts of ore at Lake Michigan ports for June were 818,601 gross tons, as shown in the following record by ports:

Port	Gross tons
South Chicago, Ill.	398,387
East Jordan, Mich.	.....
Boyne City, Mich.	.....
Milwaukee	.....
Indiana Harbor, Ind.	87,508
Gary, Ind.	332,706
Total	818,601

Jap Line Builds Ships

Arrangements have been made with the Canadian Pacific railroad to issue through bills of lading to the interior of Canada for Osaka Shosen Kaisha. The company now has six large vessels on the run between Japan and Vancouver, B. C.

The company's new fleet of 500,000

Marine Business Statistics Condensed

tons is proceeding well. The WUCHANG MARU, 2600 tons gross, which is a part of the program was completed early in May and placed on the Formosan run. At present there are 10 other ships with a gross tonnage of 33,200 tons in course of construction, which will be completed between July and February, 1922, as follows:

Name of ship	Gross ton	Date of completion
SEIKYO	2600	July
NAGATO	2600	July
MURASAKI	1550	September
Not yet named	1550	October
Not yet named	1550	December
Not yet named	2000	December
Not yet named	2000	February
BAIKAL	5000	August
LONDON	7500	August
PARIS	7500	December

Vessels of the smaller type, which are to be used in coastwise service, are being built at the Oska Iron Works. The BAIKAL is under construction at the Nagasaki shipyard, and the LONDON and PARIS have been ordered in England. The company declared a 12 per cent dividend for the first half of the year.

June Ore Shipments

Shipments of iron ore from the Lake Superior district in June were 3,600,989 tons, a decrease of 5,632,577 tons over the same month last year. Detailed figures follow:

Port	June, 1921	To July 1, 1921
Escanaba	138,756	210,804
Marquette	38,959	52,944
Ashland	309,398	526,937
Superior	873,674	1,716,230
Dunith	1,681,411	2,908,299
Two Harbors	558,791	965,013
Total	3,600,989	6,371,227
1921 decrease	5,632,577	10,069,278

Lake Erie Receipts

Out of a total of 3,600,989 tons, shipped from upper lake ports in June, Lake Erie ports received 2,773,929 tons, as shown by the figures compiled by MARINE REVIEW. The balance on dock July 1 was 8,417,725 against 7,005,050 tons on July 1, 1920. Detailed figures are:

Port	Gross tons
Buffalo and Port Colborne	78,926
Erie	45,168
Conneaut	1,063,690
Ashabula	429,386
Fairport	253,583
Cleveland	401,654
Lorain	393,575
Huron	69,044
Toledo	38,903
Detroit .....	.....
Total	2,773,929

Captain Stanley Pollard, 44 years old, late commander of the Atlantic Transport line МАНОРАС, died June 7.

Pittsburgh Traffic Gains

Traffic in the Pittsburgh river district in May totaled 1,650,320 tons, an increase of approximately 82,000 tons over April, according to the monthly report of the United States engineer for the district. The May traffic was as follows:

Commodity	Allegheny	Monongahela	Ohio
Coal	10,990	985,985	65,950
Coke .....	.....	17,956	.....
Gasoline	2,700	1,050	1,300
Gravel	130,015	90,865	53,415
Sand	145,021	97,969	40,256
Unclassified	861	1,237	500
Packet cargo .....	.....	.....	4,250
Total	289,587	1,195,062	165,671

The tonnage carried on the same rivers in April was as follows:

Commodity	Allegheny	Monongahela	Ohio
Coal	14,180	1,048,417	59,520
Coke .....	.....	20,378	.....
Gasoline	2,000	1,170	1,200
Gravel	128,053	76,095	24,377
Sand	112,816	52,564	19,174
Unclassified	370	1,291	1,700
Packet cargo .....	.....	.....	4,154
Total	257,419	1,199,915	110,125

Practical Ship Problems

(Concluded from page 371)

fect right, to do.

But, clearly for this emergency, the traditional English trade policy of *laissez faire* was suspended with great promptitude. And it is not probable that a protective sentiment which can act so effectively in an acute crisis, would lie dormant in case the danger became chronic.

The point is that no intelligent attempt to keep our ships on the seas can be safely based on the assumption that our neighbors will in the future continue their policies of the past. As long as our merchant marine was negligible it was treated with an indifference which was not far from contemptuous. But signs are not now lacking that all the maritime nations, whenever they regard American competition as serious, are prepared to meet it with whatever measures may be regarded as necessary for their own protection.

It is the opinion of close observers that this protective sentiment is crystallizing very fast, especially among English business interests. For the first time their carrying trade is seriously threatened, not only by two or more foreign nations but by the economic results of the war in England itself. All experienced merchants know that national preferences in foreign trade are impossible on anything better than even terms. That is axiomatic. But a preference on even

terms is an asset of great value to the recipient; and in trade matters its reaction is apt to be a prejudice against the severest competition. Thus an English importer might not say to himself "I will only charter English ships." His sentiment might be "I will not charter Japanese or American ships if I can help it." A prejudice is sometimes more effective than a preference.

It is evident from published utterances that England is thoroughly aroused by existing dangers to her commerce; and owing to her more homogeneous commercial population it is far easier effectively to concentrate such a sentiment there than here. Nor can we overlook the advantage which she possesses in an inherent popular preference for things English, whereas with our own purchasing public the term *imported* is the one that attracts. A keen observer once remarked that the English confidence in the superiority of all English products was equal in commercial effect to a moderate protective tariff.

In brief, English merchants and English shipowners appear to be working in harmony. Both recognize that no preference at a higher rate is possible. But the English owner makes the rate to meet foreign competition; and then the English merchant gives the preference to his own nationals. That is good team play born of long experience and a national education in overseas trade such as, perhaps, no other great nation possesses.

Furthermore, the effect of this is being accentuated by a process of "peaceful penetration" which becomes increasingly obvious here. Many large British merchants have authorized branches here; buying their goods delivered at inland points or ports of loading; and arranging their own freights. On less than cargo lots, British liners get the preference. On full cargo lots, charters are made only through London whenever possible (and it usually is). Thus not only British ships but British brokers are protected by British sentiment.

What is true of our English cousins will also be true, to the extent of their respective abilities, of all our maritime competitors. The English illustration is only used because, considering their position, experience, resources and wealth their competition will be the hardest which we shall have to meet.

Marine Business Statistics Condensed

Record of Traffic at Principal American Ports for Past Year

ALTHOUGH the traffic at the port of New York during June was below the record set during June 1920, the total handled at that port during the first six months of the current year was much larger than that handled during the same six months of 1920. The June clearances were large in net tonnage but not in the number of ships than for June 1920.

The noted improvement in clearances during June over May was due largely to the break of the engineers' strike. The clearances were much larger than the entrances, which would indicate that traffic is at last picking up some although this may be largely offset by the improvement in the labor market and the final release of ships which should have sailed during the month previous.

During the fiscal year ended with June, 5667 ships of a total of 18,932,428 net tons in overseas trade entered at the port of New York, while 5425 ships of a total of 18,629,567 net tons cleared for foreign ports.

Over 50 per cent of the foreign tonnage entering at Philadelphia from overseas ports during June entered in ballast, but practically all cleared with cargo. American vessels entered generally with cargo but over one-third of the total American tonnage clearing for foreign ports went out empty.

New York

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	408	1,368,334	419	1,425,649	
May	425	1,454,033	366	1,328,643	
April	410	1,453,056	438	1,509,353	
March	455	1,574,326	448	1,539,885	
February	424	1,407,133	374	1,315,556	
January	455	1,437,725	414	1,433,564	
December, 1920.....	516	1,732,485	518	1,802,929	
November	495	1,741,786	482	1,691,683	
October	526	1,763,904	514	1,719,103	
September	506	1,728,266	493	1,574,228	
August	537	1,634,719	499	1,649,416	
July	510	1,627,721	462	1,518,406	
June	508	1,545,144	436	1,364,297	

Philadelphia

(Including Chester, Wilmington and the whole Philadelphia port district)
(Exclusive of Domestic)

Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	71	176,968	74	214,524	
May	110	295,617	70	178,464	
April	105	255,249	79	209,854	
March	102	306,512	87	242,606	
February	104	285,369	75	221,402	
January	84	250,233	68	217,281	
December, 1920.....	116	340,133	112	235,821	
November	126	338,562	123	350,385	
October	119	328,074	165	465,800	
September	144	385,676	153	467,357	
August	153	377,695	156	438,230	
July	104	250,104	93	272,913	
June	121	286,061	79	196,787	

Norfolk and Newport News

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	57	179,852	125	375,044	
May	47	143,487	88	260,053	
April	55	160,494	108	327,241	
March	84	251,499	163	442,657	
February	151	367,936	202	505,690	
January	155	376,515	244	559,128	
December, 1920.....	216	509,154	305	722,121	
November	156	377,717	272	666,466	
October	137	345,968	275	700,759	
September	168	410,980	280	725,183	
August	189	445,371	255	669,083	
July	124	333,685	204	501,757	
June					

Portland, Me.

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	15	15,723	12	12,749	
May	4	8,324	10	8,885	
April	17	54,804	19	64,310	
March	24	75,529	25	80,107	
February	20	66,422	21	73,581	
January	34	93,933	28	86,559	
December, 1920.....	36	96,281	31	107,567	
November	37	61,804	16	23,282	
October	15	22,240	13	19,862	
September	14	29,993	5	12,661	
August	31	42,464	14	8,626	
July	19	27,314	9	9,022	
June	29	45,670	12	34,886	

Boston

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	138	211,667	100	119,945	
May	122	190,148	87	98,008	
April	101	217,080	71	133,952	
March	99	306,454	49	113,134	
February	74	260,502	46	119,847	
January	72	175,052	50	125,904	
December, 1920.....	66	178,656	51	128,439	
November	79	193,433	52	107,112	
October	82	182,028	62	116,007	
September	99	210,496	75	123,045	
August	133	235,706	83	124,643	
July	111	212,954	87	124,699	
June	120	198,136	88	124,594	

Mobile

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
May, 1921.....	43	67,627	45	71,756	
April	96	249,996	76	150,776	
March	79	147,798	56	82,898	
February	58	105,040	47	89,647	
January	68	94,273	63	78,109	
December, 1920.....	97	147,575	74	122,293	
November	73	91,814	54	74,252	
October	64	98,107	81	128,540	
September	55	102,589	60	111,595	
August	77	118,308	71	127,201	
July	74	117,421	68	101,845	
June	72	100,886	65	92,090	
May	64	105,233	79	109,204	

Savannah

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
May, 1921.....	5	9,507	16	36,577	
April	17	40,418	12	25,543	
March	13	19,924	14	29,618	
February	9	14,493	15	32,475	
January	11	21,591	20	38,179	
December, 1920.....	22	45,085	26	36,110	
November	32	61,216	18	28,108	
October	22	35,837	33	55,632	
September	21	43,316	21	46,881	
August	15	22,562	16	31,695	
July	16	29,561	14	23,679	
June	20	41,844	21	39,280	
May	16	29,270	17	36,425	

San Francisco

(Inclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	194	474,948	211	543,629	
May	271	594,409	164	426,355	
April	377	607,559	452	703,177	
March	335	643,435	341	611,575	
February	305	594,636	297	548,103	
January	356	585,689	330	566,201	
December, 1920.....	388	606,666	359	561,188	
November	393	640,474	399	633,274	
October	431	641,970	421	639,323	
September	399	549,468	391	566,048	
August	427	653,372	401	604,069	
July	393	589,656	411	660,377	
June	396	587,499	383	601,054	

Key West

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	105	104,326	104	101,494	
May	100	104,326	104	103,571	
April	115	117,586	111	114,748	
March	112	107,736	108	107,083	
February	124	118,950	120	119,241	
January	128	146,679	127	142,474	
December, 1920.....	121	102,611	121	97,733	
November	103	90,374	98	82,126	
October	84	92,944	79	80,681	
September	97	87,017	95	89,030	
August	98	91,442	102	87,420	
July	90	83,862	89	83,374	
June	94	85,776	95	84,583	

Baltimore

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
June, 1921.....	118	359,201	133	413,410	
May	109	341,731	112	341,381	
April	114	320,195	119	351,950	
March	111	320,238	107	316,536	
February	112	380,602	93	292,881	
January	131	401,511	112	344,480	
To foreign ports direct—					
December, 1920.....	92	264,142	113	329,320	
November	109	316,743	145	425,493	
October	134	372,463	188	545,974	
September	120	353,374	143	409,839	
August	103	282,370	169	473,160	
July	140	401,116	155	454,643	
June	143	411,978	183	528,270	

Los Angeles

(Exclusive of Domestic)					
Month	Entrances—		Clearances—		
	No. ships	Net tonnage	No. ships	Net tonnage	
May, 1921.....	35	98,885	26	77,036	
April	32	119,049	28	71,958	
March	39	99,455	33	94,380	
February	74	97,252	60	93,544	
January	60	111,882	86	64,844	
December, 1920.....	74	60,333	56	61,211	
November	69	89,143	79	91,763	
October	65	72,101	85	104,304	
September	27	70,989	34	77,330	
August	20	44,580	34	89,180	
July	15	40,218	23	62,737	
June	28	41,275	23	44,289	
May	28	47,151	29	31,154	

Seattle

Month	Deep sea arrivals		Deep sea departures	
	No. ships	Net tonnage	No. ships	Net tonnage
April, 1921.....	143	339,192	163	370,070
March	149	372,824	144	369,568
February	103	295,144	101	272,186
January	131	312,072	134	344,877
December, 1920.....	205	323,744	186	302,051
November	256	348,452	228	337,890
October	359	347,412	314	366,669
September	422	380,582	323	355,535
August	438	371,148	393	368,327
July	417	441,626	461	444,607
June	353	332,666	433	346,839
May	376	328,594	392	324,932
April	328	331,921	348	334,540

Activities in the Marine Field

Latest News From Ships and Shipyards

Mid-Season Finds Demand at Low Mark

BY MYERS L. FEISER

MORE tonnage was being tied up in the middle of July as a result of the falling off in demand. Line ups at docks had been getting larger, generally, with declining call for tonnage to move ore, coal and grain. The grain shipments dropped and the increase in ore loading hardly was perceptible. The cut of \$1 per ton in the price of ore failed to stimulate any active increase in buying. Continued furnace inactivity largely was responsible for this. Coal shipments slowed up toward the end of June and it was predicted they would be even slower in the middle of July.

The railroads have been in better position this year, due to the general business depression, to supply cars at docks and at elevators with the result downbound traffic has been unloaded in record time, keeping very few of the lake carriers waiting to unload their cargoes. At times the docks have been without the customary line of vessels waiting to discharge their cargoes.

The boats have been able to take coal faster than the railroads have been able to deliver it, which has resulted in considerable depletion of stockpiles. The reverse has been true with ore, the boats dumping it faster than the cars have been required to move it forward to furnaces.

Leadline legislation now pending before congress was the subject of consideration at a special meeting of vessel men held at the offices of the Lake Carriers' association in Cleveland July 11 preparatory to the hearing in Washington July 14.

The steamers A. E. McKINSTRY and KEYBELL collided in the Welland canal July 7 with slight damage to the starboard bow of the McKINSTRY.

The tug MAINE, built recently at Cleveland has been delivered to South Chicago and the tug NORTH HARBOR transferred from South Chicago to Toledo.

Following the example in cutting the steamer ANDASTE 20 feet shorter in the Ecorse yard of the Great Lakes Engineering Works, other vessels are to be shortened to Welland canal size.

When the steamer EMORY L. FORD delivered 14,000 tons of coal in Milwaukee in the week ending June 28, she established a record for the largest cargo of coal ever dumped there.

The lake steamers NORTHERN WAVE,

NORTHERN LIGHT, NORTHERN KING and NORTHERN QUEEN, operated in the Atlantic by the shipping board, have been sold to the Gulf Transportation Co. for \$20,000 each.

Colliding with the steamer BOSTON off Eagle Harbor, Lake Superior, late in June, the steamer HENRY PHIPPS was forced to go to Lorain for a number of repairs.

Wireless equipment has been placed aboard the HARRY YATES, the T. H. WICKWIRE JR., the LOUIS R. DAVIDSON and the ROBERTS. These four vessels are the first of the fleet of 11 owned by Boland & Cornelius, Buffalo, to be so equipped.

Tangled lines caused the helmet of Damon S. Godfrey, diver, to slip while 25 feet under the surface at Sault Ste. Marie and he was drowned.

Record time was made by the steamer HARVESTER when she recently left South Chicago for Superior, Wis., loaded and started on her return trip. Only 66 hours had elapsed.

Quartus A. Gillmore, ore dock superintendent at Cleveland for the Central Furnace Co. of the American Steel & Wire Co., died recently at his home in Cleveland. He had been superintendent for 20 years. He was born in Lorain, Feb. 3, 1861. His son, T. A. Gillmore, is superintendent of the ore dock at Huron and agent for the Great Lakes Towing Co. at that port.

Capt. John M. Wheeler, Great Lakes navigator and master of several small vessels, died recently at his home in Sandusky. He was 54 years old.

Early in July, George A. Marr, secretary of the Lake Carriers' association, sent out notices to masters which read as follows:

"On or about July 20, the light on Lake Huron light vessel will be changed to group flashing of 1000 candlepower, showing a group of two flashes over 10 seconds, thus: Flash, eclipse two and one-half seconds, flash, eclipse seven and one-half seconds.

"The fog signal will sound thus: Blast two seconds, silent 18 seconds.

"Submarine bell will sound a group of five strokes every 19 seconds.

"Poe Reef light vessel is to be permanently replaced by a new light vessel about July 20. It will show group flashing white lights, two flashes every 10 seconds of 480 candlepower,

40 feet above water.

"Fog signal will be a 10-inch steam whistle sounding a blast every 20 seconds, blast two seconds duration.

"Submarine bell will sound a group of five strokes every 20 seconds."

Another notice to masters read: "Range lights have been established at Calcite, Mich. The lights are located on the south side of the harbor, in range with the south pier. The outer light is located on the flux loading bin, the inner light is located on top of the screen house. Inner light 20 feet higher than outer one. Outer light 80 feet above lake. Inner 100 feet above lake. Both lights are red—and very high power (electric) lamps. The lights are 600 feet apart and the range can be seen at least 10 miles very plainly. The range takes a boat about 100 feet north of the government gas buoy (flashing red) located off the harbor. Range S. W. by W."

Sherman J. Sexton, Chicago, has been elected a member of the board of directors of the Great Lakes Transit Corp. succeeding William A. Prime, New York, resigned.

The steamer CAPE ETERNITY, bound from Thorold to Montreal with a party of United States and Canadian government officials, had some machinery trouble and was forced into Toronto.

The United States lake survey reports the monthly mean stages of the Great Lakes for the month of June, 1921, as follows:

Lakes	Feet above mean sea level
	May June
Superior	602.12 602.43
Michigan-Huron	580.58 580.58
St. Clair	575.63 575.69
Erie	573.09 573.02
Ontario	246.68 246.61

Lake Superior is 0.31 foot higher than last month, 0.21 foot lower than a year ago 0.10 foot above the average stage of June of the last 10 years, 1.00 foot below the high stage of June, 1916, and 1.19 feet above the low stage of June, 1879.

Lakes Michigan-Huron are at the same level as last month, 0.27 foot lower than a year ago, 0.31 foot below the average of June of the last 10 years, 3.02 feet below the high stage of June, 1886, and 0.68 foot above the low stage of June, 1896. During the last 10 years the June level has averaged 0.3 foot higher than the May level, and 0.1 foot lower than the July level.

Lake Erie is 0.07 foot lower than last month, 0.54 foot higher than a year

ago, 0.13 foot above the average stage of June of the last 10 years, 1.5 feet below the high stage of June, 1876, and 1.45 feet above the low stage of June, 1895. During the last 10 years the June level has average 0.2 foot higher than the

May level and about the same as the July level.

Lake Ontario is 0.07 foot lower than last month, 1.05 feet higher than a year ago, 0.23 foot below the average stage of June of the last 10 years, 2.02

feet below the high stage of June, 1870, and 1.72 feet above the low stage of June, 1895. During the last 10 years the June level has averaged 0.2 foot higher than the May level, and about the same as the July level.

Up and Down the Pacific Coast

WHAT is said to be the largest cargo of lumber to leave a British Columbia port in one vessel went out on the Canadian government merchant marine liner CANADIAN HIGHLANDER which sailed with 5,100,000 feet for Kobe, Taku Bar and Newchwang. The previous record was 4,800,000 feet shipped on a British Columbia carrier last year.

W. R. Grace & Co. have turned back to the shipping board the 5000-ton steamer DELROSA which has been operating in the trade to South America. Decline in west coast business is the reason for this decision but the company will continue to operate its own tonnage on the route to Peru and Chile.

High water on the Columbia river has retarded the handling of cargo vessels at Portland and adjacent Oregon ports. Despite this handicap, remarkable speed was made in loading the motorship PANAMA with a full cargo of wheat and flour. But four days were required for loading although the big ship towered high above the wharves and it was necessary to hoist every pound of freight aboard in slings. Cargo could not be worked by the ordinary method of electric conveyors. Eight gangs of 18 men each were employed, one gang to each hatch.

A representative exhibit of Pacific northwest products will be sent to Lima, Peru, for the centennial exposition in that city to be held July 28 to October. Various samples of exports from that section will be sent, including flour, salmon, canned berries and other commodities which will appeal to the people of Peru.

Dodwell & Co., well known steamship agents, have been named as agents for the Canadian government merchant marine which will establish a coastwise service between British Columbia ports and California in July. Offices will be opened at San Francisco and Los Angeles.

British Columbia ports are shipping large quantities of timbers, wood pulp and cedar poles to the Orient, there being a particular demand for these forest products in Japan. Nearly all the regular liners calling at Vancouver and adjacent ports are receiving quantities of these commodities.

The old Canadian Pacific steamer EMPRESS OF JAPAN, which for a score of years has been operating between Vancouver, B. C., and Hongkong, is to be withdrawn from the run in the near future and is for sale. Several representatives of coastwise lines have

examined the vessel but it is understood that a sale has not been completed. It is thought more likely that the famous vessel will be sent back to the Orient as a feeder out of Hongkong for the newer and larger vessels of the Canadian Pacific fleet which have succeeded the JAPAN and her sister vessels.

With the cessation of work at the plant of the Northwest Bridge & Iron Co., Portland, Oreg., steel shipbuilding in Oregon has been completed. Already the work of wrecking the plant has been begun, the 16 acries having been razed the middle of June. Some of the equipment will be sent to California for use in the yards in that state. The Standifer shipyards at Vancouver Wash., closed June 1 after building 23 steel vessels.

When the shipping board's new liner WENATCHEE returns from her maiden voyage to the Orient, extensive alterations will be made. It is understood that some new equipment will be installed to replace that which worked unsatisfactorily on the first voyage. The KEYSTONE STATE, a sister vessel, will also have changes made and because of this necessary work, the Admiral line, handling these vessels, has changed its oriental schedules. The SILVER STATE will be the next sailing, substituting for the WENATCHEE.

General repair work has occupied the plant of Todd Dry Docks, Inc. following the completion of a big contract on the freighter WEST HARTLAND whose bow was damaged in collision with the GOVERNOR. The Seattle yard has installed a new tailshaft and propeller on the shipping board freighter WEST IVIS, the wheel being built at the plant, and the contract calling for an expenditure of about \$15,000. Several coasting vessels have been overhauled at this yard, advantage being taken of the opportunity afforded by the marine strike.

Lumber, canned fruits and salmon comprised the cargo of the CANADIAN INVENTOR of the Canadian government merchant marine on the inauguration of service between Vancouver, B. C., and South African ports. This is the first steamship service established between the Pacific Northwest and South Africa. The vessel will call at Bombay and Calcutta and then Durban, Port Elizabeth and Cape Town.

P. E. Harris, salmon canner of Seattle, has purchased the GENERAL PERSHING, a 2467-ton wooden motorship built on Puget sound three years ago. The vessel was purchased at marshal's sale for \$27,500 at Newport News, Va. She will load a cargo of coal for the north Pacific. The GENERAL PERSHING cost

her original Norwegian owners about \$700,000.

The Pacific Steamship Co. has libeled the shipping board freighter WEST HARTLAND as a result of the collision with and subsequent loss of the, express liner GOVERNOR off Port Townsend, Wash., on April 1. Libellant asks \$2,500,000 for the GOVERNOR, her cargo and baggage. In the complaint, blame is placed on Capt. John Alwen of the WEST HARTLAND. A curious feature of the case is that the Pacific Steamship Co. was also operating the WEST HARTLAND at the time of the mishap. Following the suspension of the license of Pilot H. H. Marden of the GOVERNOR for a year, Captain Alwen has been on trial on charges of negligence. Decision in his case has not been announced.

While shipping board vessels are returning to service as rapidly as business is found for them, following the end of the strike of marine engineers, private operators are having some difficulty in operating their vessels on schedule. Service to the Hawaiian islands and to Alaska has been considerably handicapped while operation of steam schooners on the California routes has not been attempted. Operators state however, that their men are coming back and they expect to resume in the near future.

The rate on import crude rubber from the northwest to points as far east as Chicago has been cut from \$1 to 75 cents per hundred pounds by the trans-continental railroads. It is expected that this new rate will shortly apply to points in Ohio. This concession was made to stimulate the movement.

Officials announce that bids will shortly be asked for a passenger ferry to operate between Seattle and the Puget sound navy yard. Plans have already been approved. The new craft will have a large capacity for passengers and autos commensurate with the increased demands of the route. It is expected that the ferry will cost about \$500,000.

During the balance of this year, about 4800 Chinese steerage passengers traveling from Cuba to China will be handled by vessels of the Admiral line. The first party arrived by the SILVER STATE and others have been booked.

Steaming records were made by the new shipping board steamers KEYSTONE STATE and SILVER STATE, allocated to the Admiral line for oriental service, both of which arrived at Seattle from New York late in June. The KEYSTONE STATE steamed the 1243 nautical miles between San Pedro and Seattle in 73½ hours. The SILVER STATE broke all

steaming records between New York and San Francisco by making the distance in the steaming time of 12½ days. After leaving San Francisco, she broke another record by arriving in Seattle in 45 hours. The best previous time between San Francisco and Seattle was made by the steamship *PRESIDENT* in 1910 which did the distance in 47 hours 50 minutes.

China has sent two engineers to study the inland waterways systems of the

United States, with a view to developing the waterways of the youngest republic. They are H. S. Sung, chief engineer of Nantung conservation bureau, and P. L. Shen, chief technical expert of the Kiang Su Grand Canal improvement board. They spent some time looking over the inland waterways and canals of Louisiana. China plans to spend hundreds of millions in the development of inland waterways and their traffic, according to these engineers, who will spend several months in the United States.

diesel engines, each driving a twin screw, and each rated at 950 horsepower. When submerged she will be driven by two electric engines having equal power. Mrs. Ella Esmond, wife of William Esmond, naval architect for the Lake company was the sponsor.

Ocean freight rates out of New Orleans to the continental European ports on cotton cargoes were advanced 15 to 20 cents per 100 pounds during the second week in June. Local freight brokers quoted high density compressed cotton at 55 cents to Rotterdam and Antwerp and 60 cents to Hamburg and Havre. The quotation to Liverpool was not changed at this revision, standing stationary at 55 cents. For about two months prior to this advance, considerable quantities of cotton were booked as low as 40 cents, a large part of which was engaged for Hamburg and Bremen.

From East and South

THE amount of steel seagoing merchant vessels under construction in New England shipyards on June 1 was five tankers of 35,900 tons gross, and one freighter of 6200 tons, making a total of six vessels, 42,100 tons gross, all steamers. This is a considerable reduction from previous months, and the tendency is still downward.

The volume of repair work done by the new 10,000-ton floating drydock at the Fore River plant of the Bethlehem Shipbuilding Corp., Quincy, Mass., has been so satisfactory that it is reported that a smaller floating dock of 6000-ton capacity may be acquired for the plant. This would enable the shipbuilding company to compete with other ports for big repair jobs which would occupy one dock for long periods.

The Turner & Gilbert Shipyard Co., East Boston, Mass., is working on the schooner *FANNIE F. HALL*, converting her into a replica of the *MAYFLOWER*. As soon as completed, the vessel will go to Plymouth, Mass., to be used in filming scenes for the Educational Motion Picture bureau, which recently purchased the vessel from O. A. Gilbert, of the Boston Ship Brokerage Co.

It is quite possible that the government will soon take over the Cape Cod canal without further legal action. Its purchase by the government for \$11,500,000 was recommended to congress June 11, by Secretary Weeks, the price it is said, having been agreed upon by the company and the war department.

Reports of the recent standardization trial trip of the U. S. hospital ship *RELIEF* on the Rockland, Me., course, show that she attained a maximum speed of 16.65 knots an hour and developed 5811 horsepower. The highest speed was made on 113.05 propeller revolutions per minute.

The finding of powdered emery in the engine and shaft bearings of the shipping board steamer *DELISLE* at East Boston harbor recently will be the subject of a thorough investigation by department of justice men. It was a deliberate attempt to cripple the steamer, and would probably have resulted disastrously, if the vessel had proceeded to sea without the discovery being made.

The Red Star line of Boston has

announced that arrangements have been completed whereby the all-water service to Rhine points, which was so satisfactory prior to the war, has been resumed. Transshipments via the Red Star Antwerp steamers may be made both for incoming and outgoing traffic, and through bills of lading are issued.

A new service was recently inaugurated by the Rogers & Webb Co. with the steamer *EASTERN BELLE*, from Boston to the Irish ports of Limerick, Cork, Dublin, Belfast, Londonderry and Sligo, which will become a permanent service provided the freight offerings justify it.

The sailing of the American steamer *WEST HIKI* from Port Angeles recently, marks the opening of a service between the Hawaiian islands and Atlantic coast ports by vessels of the North Atlantic & Western Steamship Co. The vessel is about 8800 tons deadweight and is the ninth to be added to the company's fleet. The others are the *BRUSH*, *ARTIGAS*, *LEHIGH*, *WEST TIGUS*, *WEST ISLETA*, *YALZA*, *C. C. MORSE* and *COLIN H. LIVINGSTONE*.

An extension to the Rogers & Webb Portland, Me., service was recently made, when the new line from Montreal was inaugurated with three sailings a month to Rotterdam, Antwerp and Hamburg with the steamers *DEWELL*, *MERCER VICTORY*, *MERRY MOUNT*, *WESTERN PLAIN* and *WEST KABAR*.

A contract has recently been awarded by the shipping board for converting the steamer *PEACOCK* into a salvage vessel at a cost of approximately \$50,000. She will make the third of this type, the other two being the *WILLETT* and *WARBLER*.

The submarine *S-50*, last but one of the S-type boats being built by the Lake Torpedo Boat Co. was launched from the ways at the shipyards of the company in Bridgeport, Conn., recently. The *S-50* was the heaviest submarine ever launched in Bridgeport. When fully equipped and ready to be turned over to the navy, she will have a displacement of 1000 tons. She is a sister ship of the *S-48* and *S-49* and will be equipped with a submersible radio apparatus. Besides the 4-inch gun, her battery will consist of five 21-inch torpedo tubes, four forward and one aft. She will be propelled by two

The Munson Steamship line which recently opened a New Orleans office was granted preferential rights to 470 feet of wharf space by the dock board. The space was formerly used by the Richard Meyer Co. which in turn was assigned 500 feet at another point formerly held by the Kerr Steamship line.

The dock board has reached an agreement with the New Orleans authorities concerning the erection of a proposed shed at Canal street. So much opposition developed toward the suggestion that a compromise was effected whereby the dock board will erect a sort of ferry landing and office building combined.

The gulf conference on ocean freight rates to the United Kingdom refused to follow the Atlantic conference in reducing the rate on grain.

The steamship *ANNISTON CITY*, recently completed by the Chickasaw Shipbuilding & Car Co., Mobile, Ala., is on her maiden voyage in the service of the Isthmian line, the new line which will operate between Mobile and New Orleans and Pacific coast ports through the Panama canal.

Sixty eight marine strikers were found guilty at New Orleans of violating the injunction issued by Federal Judge Rufus Foster in the United States court. The action of contempt for which they were tried was charged to the boarding of the shipping board steamer *HADNOT* in May when practically the entire non-union crew was taken off and badly beaten. Some of those convicted were sentenced to short terms in the Parish prison at New Orleans while others were distributed in the various nearby parish jails.

The American steamship *TIPTON* owned by the United States shipping board, which had been laid up in port for some time, has been chartered for three months by the Vaccaro Bros. Fruit & Steamship Co.

Rebuild Large Atlantic Liner

Recondition America, Big Passenger Ship, to Meet Exacting Requirements of North Atlantic Service

THE sailing of the AMERICA of the United States Mail Steamship Co. from New York on June 26 marked the beginning of a new era in American shipping. Not only was she the largest and most luxurious liner yet to sail under the American flag, but she inaugurated a new service on the north Atlantic route, stopping at Plymouth, Cherbourg, Bremen, and on her return at Cherbourg, Southampton, and Queens-town.

The AMERICA had just been completely reconditioned from a troop transport by the Morse Dry Dock & Repair Co., Brooklyn, N. Y., the work being carried through in the remarkably short space of little over two months in order that the ship might take part in the rush of summer travel. She is the first of a fleet of these big liners, including the GEORGE WASHINGTON, President Wilson's peace ship, being made ready to sail under the American flag for the United States Mail company.

Repair Job of Great Size

Fitting the AMERICA for service was one of the largest repair, alteration and reconditioning jobs ever undertaken by a ship repair company. Originally going to the Morse yard to be made into an immigrant carrier in 53 days, the passing of the immigration restriction act caused a sharp change in the specifications so that she was made into a luxurious passenger liner.

Formerly the Hamburg-American liner AMERIKA, built in 1905 by Harlan & Wolff, Belfast, Ireland, she was fitted up in the luxurious style characteristic of the Germans and was chosen by the kaiser for making one of his visits to England, the "kaiser suite" being made one of the finest on board.

Taken over by the United States during the war, she was fitted as a troop transport for carrying 8000 soldiers. In this service she made 22 trips and transported upward of 132,000 troops.

Last year she was used in repatriating the Czecho-Slovaks, leaving New York, going through the Panama canal, up to San Francisco, across to the Hawaiian islands, then to Vladivostok. There she took on 7100 Czechs and carried them back to their homeland disembarking at Trieste. She then completed her trip around the world, only

to go back with another load from Norfolk, Va., when the MOUNT VERNON was disabled enroute.

She was towed to the Morse yard about the first of May after eight months of idleness. More than 900 men were put on the job.

Old and useless fittings were torn out over the whole length and breadth of this massive floating structure, 668 feet long and 76 feet beam, with seven decks besides holds, compartments, and all the equipment and accessories of a great ocean liner.

Provide Fine Accommodations

One of the features of the work was installing in five holds removable staterooms, the walls of which can be quickly taken down and stored away, leaving the space for cargo when occasion demands.

Other features were electric baths, a ladies' hairdressing parlor, an electrically equipped gymnasium with facilities for running, swimming and horse-back riding. Hospitals and the latest sanitary facilities assure the best of health protection to the passengers, and the up-to-the-minute safety equipment looks out for the possibility of any unforeseen happening.

The life boats were equipped with new modern davits and the latest appliances throughout. A fire detecting and extinguishing apparatus is connected with every room warning instantly of any danger in this direction. Sprinkler systems were installed in all the third-class quarters.

All staterooms, social halls, dining rooms, smoking rooms, promenade decks, in fact the entire ship both inside and out was renovated, repainted, and re-decorated, making her again as fresh and beautiful as when she first sailed the seas.

Outside, her hull was painted a jet black set off with the white of her entire superstructure and life boats. Buff colored masts and the red, white and blue funnels of the United States Mail Steamship Co. make her a striking ship. Inside, the hallways were decorated in a cream color with light blue trimmings, the winter garden in green lattice work, the Ritz-Carlton dining room in maroon and gold. Many of the staterooms have still the rare inlaid work in the walls and furniture as in

the original ship, while others are entirely redecorated.

The galleys and pantries were overhauled and remodeled, making them the last word in up-to-date equipment for preparing the food for the small army of inhabitants who will live in this floating city. Electrically equipped instead of coal burning ranges are used.

She is fitted to carry approximately 550 first-class passengers, 3000 third-class and 700 crew.

All the machinery in the AMERICA had to be entirely overhauled and put in first-class working order, a task requiring skill and care. When the crankshafts were lifted, it was found that they would have to be remetaled, as well as the bottom end connecting rods and eccentric straps. This necessitated setting all the main engine valves.

The main condensers had to be partially retubed and thousands of ferrules made to put the condensers in first-class condition. The entire system of watertight doors, which had not been working, were thoroughly overhauled and made to operate perfectly from the captain's bridge.

Details of Repair Work

Many parts for the governor gear, which had not been used for some time, had to be newly designed and constructed in the Morse yard. One new crank journal was fitted, the ship's pumps overhauled, the water tanks cleaned, coal bunkers enlarged, in fact, every part of the machinery put in condition.

One of the features of the work was drydocking the AMERICA on the 30,000-ton floating drydock of the Morse company, the only commercial dock in New York harbor capable of lifting so large a ship. This feat was successfully accomplished, raising her in 28 minutes and 7 seconds, claimed as a world's record for a ship of this size.

Another feature was the building in the company's machine shop of two big capstans, said to be the largest ever constructed in the port of New York, the AMERICA's original ones having been removed for gun placements.

The excellent performance of the AMERICA out to sea on June 22 in which she made over 15 knots an hour with less than her full head of steam, assures that when at her best she will be one of the fast ocean express liners.

Late Decisions in Maritime Law

Legal Tips For Ship Owners and Officers

Specially Compiled for Marine Review

By Harry Bowne Skillman

Attorney at Law

A SALVAGE award for \$35,000 was awarded a wrecking company in the case of NOELLE, 203 *Federal Reporter* 590, for releasing a steamship, worth, with cargo and freight, \$1,625,000, stranded on the outer Diamond shoals, at a point some nine miles east of Cape Hatteras, "known to the maritime world as the graveyard of the Atlantic." It appeared that the salvaging vessel was the only one available and was worth \$175,000, that practically two days' time elapsed between leaving and returning to port, that the service was promptly and efficiently rendered and resulted in saving ship and cargo without injury.

"The American doctrine is that freight paid in advance can be recovered back in the event that the ship fails to deliver the cargo at destination, unless there is a special stipulation that the freight shall not be repaid."—CATALUNA, 262 *Federal Reporter* 212.

A vessel which was in the transatlantic merchant service during the war did not cease to be a merchantman, nor its crew merchant seamen, with the right to maintenance and care in case of injury, because the vessel was armed with two guns, manned by a naval gun crew, for protection against submarines. Fact that seaman received 50 per cent additional wages as a "war risk bonus" did not deprive him of the right to maintenance and care for a reasonable time after termination of the voyage, while being treated for injuries received during a submarine attack on the vessel. In connection with the latter holding, the court said: "With considerable doubt, and quite conscious that I may be influenced by very deep-rooted views of the extent and nature of sea perils, and a firm belief that the union between crew and ship ought always to be maintained with loyalty on both sides, and should extend on the one hand to the care of the ship as 'long as two planks hang together,' and on the other hand to the care of the seamen in every way naturally arising out of their dangerous and honorable employment, I am of opinion that [libellant] and his mates engaged to assist the owners of the steamship in an adventure full of peril, and yet it was all sea peril; war had only increased the dangers of the seas, not changed their kind. Even today almost every deep-sea bill of lading contains the exception against pirates, robbers, enemies, and capture; they are among the oldest perils of the merchantmen. To be sure, the seamen received high wages; but the shipowners, on the other hand, received high freights. The nature of the engagement between ship and crew remained the same. Only the probabilities of hurt were increased,

but neither by express contract nor by any provision of law is the duty of care and maintenance taken away from the ship. Indeed, I think it would require express statutory provision to relieve a ship of this obligation."—Saunders v. Luckenbach Co., 262 *Federal Reporter* 845.

A charter party providing that hire shall cease where the vessel is delayed for more than 24 hours, due to a breakdown of machinery, etc., precludes tacking together periods of less than 24 hours, so as to deduct a full day's hire. Steamship Knutsford Co., Ltd., v. Barber & Co., Inc., 261 *Federal Reporter* 866.

The requirement of a ship is to give reasonable medical treatment under all circumstances to an injured seaman. The ship will not be held responsible for an error of judgment on the part of the ship's officers, if their judgment is conscientiously exercised with reference to conditions existing at the time; it is only where the external extent of the injury in question should have moved them to ascertain its real nature, when they could do so without serious diversion of the course, and at comparatively trivial expense, that the courts have permitted liability to attach to the vessel.—VAN DER DUYN, 261 *Federal Reporter* 887.

Owners are not under a continuing personal liability on an implied warranty that a boat shall remain seaworthy and properly manned and equipped during the time of the charter. A contract of towage imposes, not the duty of an insurer, but only the duty of exercising ordinary care and skill.—ICE KING, 261 *Federal Reporter*, 897.

Rule VI. of the supervising inspectors, promulgated under authority of Section 4412 of the revised statutes of the United States, which requires a steamer navigating a river at a short bend or point, where from any cause a steamer approaching in the opposite direction can not be seen at a distance of 600 yards, to give a signal of one long sound of the whistle as a notice to any steamer that may be approaching on the other side, and within half a mile of such bend or point, was not violated, it was decided in the case of DUQUESNE, 262 *Federal Reporter* 1, where the bend or point in the river was not short, but was sufficiently long and flat to enable the approaching steamer to pick up the other and keep her continuously in sight for a mile or more.

In the case of C. GALLAGHER, 262 *Federal Reporter* 97, the court said, "The testimony is quite convincing that

hawser tows westbound, in approaching North Brothers island on a flood tide navigate on the port side of the channel in order to give eastbound hawser tows room to round North Brothers island and pass the railroad piers on the north side in safety. The flood tide in the main channel sets on Oak Bluff and the New York side opposite the northern end of North Brothers island, and is then deflected slightly toward Riker's island; this set being somewhat counteracted by the direction of the weaker tide coming through the shallow channel between North Brothers island and South Brothers island." Continuing, the court said, "We regard this a reasonable practice, justifying a departure from the general rule described in article 25 [of the Inland Regulations] and have recognized similar practices at other points."

The obligation of one who has agreed by charter party to supply barges for 18 voyages can be met only by performance or something which excuses performance, and if shipper fails to perform, by paying freight and demurrage, the owner may declare the breach and refuse further performance, or may disregard the breach and refuse further performance, or disregard the breach, elect to continue performance, and recover, when contract is performed, all to which he is entitled. Where election to perform is made by the owner, he may demand and bring an action in affirmation of the contract for each installment of freight and demurrage as it becomes due and payable. Such election is final and keeps alive all obligations of both parties thereunder. Eastern Transportation Co. v. East Carolina Lumber Co., 262 *Federal Reporter* 195.

Where a vessel left her home port, when her master and manager knew, or should have known, that a tropical hurricane was approaching her path, dangerous for any kind of vessels to approach, and especially one of her limited size and resistance, then the owners would be responsible for her departure from her home port in an unseaworthy condition, in view of the weather she was likely to encounter, and could not claim the protection of the Harter act. The exceptions in the bill of lading, it was decided in Texas & Gulf Steamship Co. v. Parker, 263 *Federal Reporter* 864, are not available where the act of God or the perils of the sea causing the loss could have been avoided by the exercise of due care and diligence. In that event, the negligence, and not the peril of the sea, is deemed the proximate cause of the loss."

Marine News in a Personal Way

Intimate Gossip About What Leaders in the
Maritime World Are Doing

ROBERT W. MORRELL, of the Tidewater Oil Co. has been added to the technical committee of the American Steamship Owners association. Mr. Morrell, the eighth member of the committee of which William Francis Gibbs is chairman, will have charge of the tank steamer tonnage.

* * *

HARRY J. LEITER, formerly connected with the Neptune Shipping Corp., has been placed in charge of the chartering department recently added by the Metropolitan Shipping Corp.

* * *

JOHN D. HASHAGEN, formerly with the American Glue Co. at Seattle, has been appointed traffic manager of the North Atlantic & Western Steamship Co. at San Francisco.

* * *

JOHN T. COWLES, president of the Cowles Marine Salvage & Mfg. Co., is in personal charge at Chicago of efforts to raise the steamer PERE MARQUETTE which sunk 11 years ago.

* * *

C. HENRY SMITH, San Francisco, is at the head of an enterprise reported to be attempting revival of the old Lindvig line, operated by A. O. Lindvig under the Norwegian flag, between Portland, Oreg., and the west coast of South America.

* * *

ROBERT HENESY, vice president and general manager of the Neptune Forwarding Co., 17 Battery Place, New York, has resigned.

* * *

J. H. LAWRENCE has engaged in the exportation of coal with offices at 82 Broad street, New York.

* * *

EDWIN F. HARDING, for several years traffic manager of Alfred Herbert, Ltd., has become vice president of the Allied Forwarding & Shipping Co., International Commerce building, New York.

* * *

LEE M. CARROLIN, vice president and general manager of the Tracy Steamship Co., New York, has resigned to engage in ship brokering at 78 Broad street.

* * *

JOHN W. BRASSINGTON, formerly chief engineer for Pusey & Jones, Wilmington, Del., shipbuilders, and later for the American Writing Paper Co., Holyoke,

Mass., has taken charge of the new department of the Port Arthur Shipbuilding Co., Ltd., Port Arthur, Ont., which will manufacture pulp and paper machinery and digesters. JOHN B. PURVES, a mechanical engineer with 26 years experience in building this type of machinery, is his assistant.

* * *

CAPT. REGINALD R. BELKNAP, who laid the North Sea mine barrage, and at present is in command of the United States destroyer and submarine base at Squantum, Mass., has been ordered to Newport, R. I., as a member of the staff of the War College.

* * *

LIEUT. COMMANDER S. A. DOBIN, U. S. N., has been appointed executive officer at the New London, Conn., submarine base to fill the vacancy caused by transfer of Commander G. A. Alexander, who after two and a half years service has become executive officer of the U. S. S. ROCHESTER.

* * *

ERNEST LEE JAHNCKE, president of the Jahncke Dry Dock & Ship Repair Corp., New Orleans, and councillor from the South Atlantic and Gulf section of the Atlantic Coast Shipbuilders' association, Philadelphia, has been authorized by the association to enlist the marine interests of the South in the association's work.

* * *

R. A. DEAN, assistant to the chairman of the United States shipping board resigned when the new board was named and JOHN CALLAN O'LAUGHLIN was appointed his successor. Mr. Dean expects to open an office in Washington and to pay particular attention to maritime matters.

* * *

HARRIS LIVERMORE has resigned as president of the United American Lines, Inc., New York, to undertake special work in foreign fields for the company and affiliated organizations. H. M. Robinson, chairman of the United American company, for the present will also act as president.

* * *

ARTHUR T. HENDERSON has been appointed passenger traffic manager for the United States and Canada for the French line, succeeding the late Col. M. W. Kominsky. Starting as a substitute stenographer in 1892, he became a

traveling passenger agent in 1897 and eight years later became assistant general passenger agent.

* * *

W. G. ANNABLE, general passenger agent of the Canadian Pacific Ocean Services, Ltd., has been made assistant general traffic manager; WILLIAM BALLANTYNE, assistant general passenger agent becomes general passenger agent; and H. M. McCALLUM, general agent at Toronto, Ont., succeeds Mr. Ballantyne as assistant general passenger agent.

* * *

CAPT. D. GEREN, for many years affiliated with the shipping and transportation business both in this country and abroad, has associated himself with the Maritime Forwarding Corp., 116 Broad street, New York.

* * *

S. V. MC LEOD has been appointed purchasing agent of the Algoma Steel Corp., Ltd., with headquarters at Sault Ste. Marie, Ont., succeeding L. L. JACOBS, resigned, effective July 1.

* * *

The Union Shipbuilding Co., Baltimore, has engaged the Crandall Engineering Co., Boston, to install a railway drydock of 4000 tons lifting capacity. This new dock will measure 360 feet over the keel blocks; 70 feet wide, with 15 feet of water forward and 20 feet aft over the block and will be capable of docking vessels up to and including the 8800-ton class of ships. The Crandall company designed and is building a 1200-ton railway drydock for the Sydney Foundry & Machine Works, Ltd., Sydney, N. S. This new dock measures 200 feet over the keel blocks; 50 feet wide, and gives 10 feet of water forward and 16 feet aft.

Modern machinery for the propulsion of vessels, and motors for increasing the efficiency of many types of craft by the introduction of electric auxiliaries, were featured at the exhibit of the General Electric Co., Schenectady, N. Y., at the Baltimore marine show and export and import exposition, July 11-16. Certain types of propulsion apparatus were represented by models and actual parts of equipment. Among them was a model of the electrical machinery of the ECLIPSE which recently completed a voyage of nearly 27,000 miles with electric drive.

Practical Ideas for the Engineer

Steering Gear for Big Freighters—Owners to Take Part in Safety Campaign—Superheated Steam

STEERING gears for the 20,000-ton ore-and-oil and ore-and-coal vessels under construction of the Bethlehem Shipbuilding Corp., Ltd., are being built at the Moore plant of the corporation at Elizabeth, N. J. Four of the vessels, the ore-and-oil carriers, one of which is for the International Petroleum Co., Ltd., and three for the Ore Steamship Corp., are being constructed at the Sparrow's Point, Md., plant; the other two, designed for carrying ore and coal for the Ore Steamship Corp., are being built at the Union plant, San Francisco.

The steering gear, which is the same design for all six vessels, consists of a standard 16 x 12-inch screw steering gear direct-connected to the rudder stock through a spring-quadrant and tiller, as shown in the accompanying illustration. The tiller is free to turn on the rudder stock, and is operated by the connecting links of the screw gear. The quadrant, keyed to the rudder stock and connected to the tiller by two heavy springs, transmits the power to the rudder. All shocks between the rudder and engine are taken by the quadrant springs, which

are so arranged that they are both in compression at the midship position and, therefore, instantly transmit any movement of the quadrant and screw gear to the rudder stock. This combination provides a powerful gear with the added advantage of transmission through the shock absorbing springs.

For ordinary operation, the steering engines are controlled by hydraulic telemotor. A trick wheel, on the same deck as the engines, provides means for control when adjustment of the telemotor is required. For docking purposes, the valves of the engines can also be controlled from a steering column located on the engine and boiler room casing and connected up through shafting and bevel gearing. For hand steering, the engines can be disconnected and the screw operated by three 78-inch hand wheels located at the forward end of the gear.

Arrangements are also made for relief steering from a steam winch located on the poop deck. The quadrant is grooved to take chains which are operated from two winch heads by means of relieving tackle carried through deck leaders to the steering

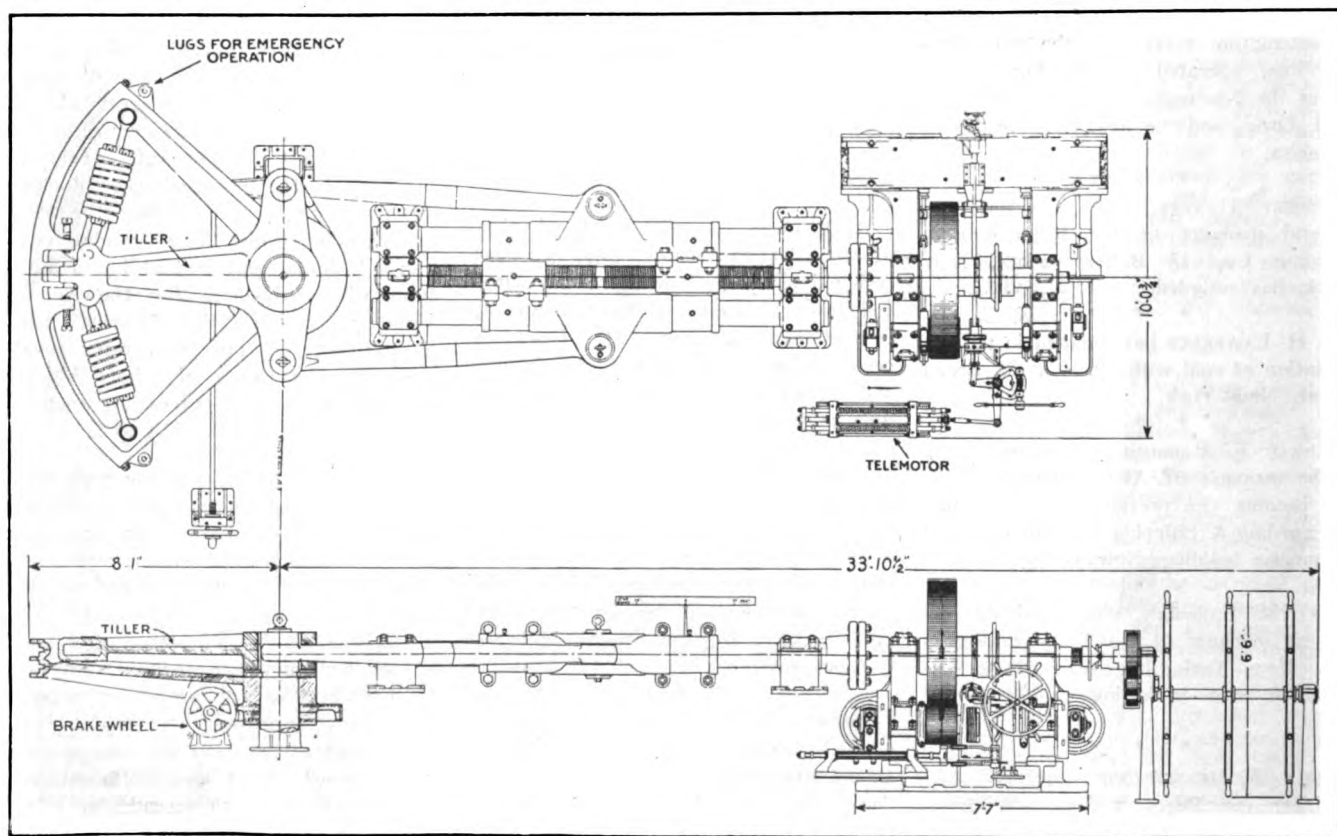
gear room. The quadrant being keyed to the rudder stock, operates the rudder direct.

For emergency steering, lugs are fitted to each side of the quadrant and the rudder stock can be operated by hand through cables attached to the lugs.

Ship Owners Will Push Campaign for Safety

An important movement toward more comprehensive handling by American shipowners of problems relating to structural standards for American ships, especially with reference to bulkheads as well as to loadline regulations, general design and engineering, has been instituted by the American Steamship Owners' association, 11 Broadway, New York.

Feeling that the shipowners should have the best technical representation in national and international conferences dealing with these problems, and deliberations of every character relating to legislation and the adoption of official regulations intended to improve American merchant ships, the owners'



COMBINED SCREW AND SPRING QUADRANT STEERING GEAR FOR COMBINATION ORE VESSELS

association has appointed a special technical committee to represent it in such matters.

These problems have been handled chiefly at conferences between the navy department's architects and representatives of the shipbuilders, at which the shipowners were represented by shipping company officials whose experience was not necessarily technical. These conferences have dealt with such highly technical subjects as subdivision of hull, and loadline, with the most vitally interested party, the owner, unrepresented in the deliberations by a technical representative.

In naming its technical committee, the American Steamship Owners' association has chosen men trained to deal with these intricate subjects as experts, but who at the same time are in close touch with the executive problems of the shipping business.

The members of the committee are as follows: William Francis Gibbs, chief of construction, International Mercantile Marine Co., chairman; Capt. O. W. Koester, vice president in charge of construction, United States Mail Steamship Co.; John H. Telford, superintending engineer, Munson Steamship line; C. A. Ward, Jr., naval architect, Merchant Shipbuilding Corp., Chester, Pa.; A. S. Hebble, superintending engineer, Southern Pacific Co.; James Donald, president, States Marine & Commercial Co., Inc.; Warren T. Berry superintendent, marine construction, New England Steamship Co.

This committee already has begun its labors by picking up the loose ends of plans for greater structural safety of American ships that had begun to take shape when the war began, but which led to nowhere because of the great upset in business caused by the war. These plans were brought to a head in the international convention of 1914 on safety at sea, which worked out regulations for the subdivision of ships by bulkheads, and establishment of loadline rules. Great Britain adopted the suggested rules, but this country did not. In the last congress, a loadline bill was introduced, and appeared to make some progress, but it died with the session.

It is the aim of the technical committee of the American Steamship Owners' association to take up the subject with vigor. As a first step, Mr. Gibbs, its chairman, when recently in Great Britain, held conferences with representatives of the British board of trade, the chamber of shipping, which corresponds to the owners' association here, and of Lloyd's, learning their methods of handling the problems, regulations now in force, and proposed developments pertaining to loadline and bulkhead regulations.

As a result of these conferences, Mr.

Gibbs, who returned home a few weeks ago, gathered much important material for the use of his committee, which will have early consideration in shaping plans to be followed on this side of the Atlantic.

"We have no uniform rule of bulkheads, and we have no loadline rules," said Mr. Gibbs on his return. "We propose to get both. We also hope to co-operate with the classification societies, and with the department of commerce in working out better methods on many points in the steamship inspection regulations, some of which are onerous and inadequate. What we want is safer ships, and simpler and more effective regulations for maintaining their standard of construction and equipment. It is a big job, but with the steamship owners behind it, we feel confident that it can be accomplished without undue loss of time."

Superheating Steam Cuts Operating Costs

To the Editor of MARINE REVIEW

When the question of installation of superheaters is being considered, the thought will occur, "How will it affect operating costs? How much fuel will it save?" In general the answer is that the saving is from 10 to 12 per cent for 200 degrees of superheat, which are average results obtained in the operation of nearly 200 ships.

The present high price of all equipment entering into the construction of ships, results, in considerable thought on the question of net returns, on the investment. Because it renders a high return, especially in fuel saving, superheated steam is of interest to vessel owners. Steam, when superheated, becomes a more efficient working medium. Boilers, steam lines, engines, turbines, and auxiliaries become more economical and of greater effectiveness.

Consideration by American vessel owners of how superheated steam reduces ship operation costs, could be no more timely than at present. The American merchant marine is striving to gain a position on the seas of the world and this can be attained only by bringing the cargo rates in line with those now existing among foreign ship operators. It is of importance that American ships, in order to compete successfully with ships operated by foreign competitors, be operated at a cost at least as low as those under foreign flags.

An appreciation of the need of an extensive program in the application of economy producing factors is evidenced by the active interest being taken in this subject. A prominent Dutch steamship company has 78 ships, 73 of which are equipped with fire tube superheaters

using high degrees of superheat. Of this number, 18 are undergoing construction or recently have been placed in service. As a nation, the United States can not afford to take a passive attitude in meeting the relation which economy in fuel will have on her ability to compete with such merchant marines as Great Britain and Japan. American engineers know the value of superheated steam, but its adoption must be passed upon by the operating officials who have the final say in such matters.

Operating reciprocating engines on superheated steam effects a great saving in fuel, either coal or oil. This saving results in cylinder condensation, the greatest heat loss in the marine condensing engine, being avoided. As superheated steam has a greater volume per pound than saturated steam, less steam is actually required for a given shaft horsepower. Less steam used means less water need be evaporated by the boilers and, hence, less fuel is required to do the work.

The advantages of superheated steam in turbines are no less important. With superheated steam no water enters the turbine. Water or moisture is particularly damaging to steam turbines. It causes excessive friction and has a destructive effect on turbine blades. The deterioration of the blades due to moisture is rapid, causing increased steam consumption and the necessity of reblading. Blade wear is reduced through superheating and reblading is necessary only after much longer periods of operation.

There are other parts of a ship's mechanical equipment which are favorably affected by the use of superheated steam. Auxiliary steam equipment, pumps, evaporators, filters, condensers, etc., are called upon to do less work, increasing their life and decreasing their maintenance cost. The use of superheated steam on deck engines, winches, anchor engines, etc., should be applied because, when saturated steam is used, their operation suffers from excessive condensation due to their being located at long distances from the boilers supplying the steam. By using superheated steam, these engines will operate more effectively, with quicker response to the throttle and with greater power.

Fuel economy effected by superheating has far reaching results. In planning new ships particularly, the saving in fuel is important because it makes it possible to reduce bunker space, releasing nonrevenue producing bunker space for valuable income-producing cargo space. The deadweight ton mileage of a ship operating on superheated steam is increased; in many cases the speed of a vessel is increased, as is also its steaming radius.

(Signed) ENGINEER

Equipment Used Afloat, Ashore

Governor for Pumps—Gantry Drill Press—Engine Generator Set

THE pump governor for marine service, formerly manufactured by the Ideal Automatic Mfg. Co., has been redesigned. It is now manufactured solely by the Atlas Valve Co., Newark, N. J., whose designing engineers have developed the improvements.

Figs. 1 and 2 show the two principal designs. Both are made for turbine or reciprocating steam driven pumps. Both styles, also, are approved by the national board of supervising inspectors of steam vessels and by the bureau of engineering, navy department. The type in Fig. 1 is designed for constant or fixed pressures while Fig. 2 is made for pressures that may be varied from time to time.

The governor shown in Fig. 2 is equipped with an emergency control lever which provides means for manually operating the governor so that it can be held wide open or be shut off tight regardless of the pump pres-

sure. Where the pump must deliver an exceptionally high pressure during an emergency, or where pumps must be shut down quickly in case of fire or rupture of the pipe lines, it is evident that this lever adjusting feature is important. It is ready at all times to throw the pump in or out of service as the emergency may require.

This pump governor is of the variable pressure type which can be adjusted to maintain any predetermined pump discharge pressure. At the same time by manipulating the lever an almost instantaneously increased discharge pressure is effected.

This governor is piston actuated. It is extremely sensitive, with a patented exclusive feature of an actuating piston operating in a bath of oil. This body of oil not only lubricates the operating piston but also prevents the liquid being pumped from entering the control cylinder, thus eliminating any possibility of the sticking of the piston

due to corrosion or deposits of sediment.

The governor is simple in construction and consists of only two moving parts—the steam valve which moves backward and forward within the valve body (which is of the double seated balanced valve type), and the control piston which moves backward and forward in a bath of oil within the control cylinder. They are installed in the feed line to the pump in a manner as indicated in Fig. 3. Fig. 3 shows the governor of the Fig. 1 type in place, so that the pump is a constant pressure pump. The control cylinder of this governor is connected through valve *A* and a pipe line to the pump discharge as plainly shown in Fig. 3.

For general use, from $\frac{3}{8}$ to 2-inch sizes, these governors are made of bronze throughout and for larger sizes up to 6 inches, they are given iron bodies, trimmed with bronze. For superheated steam, they have steel bodies and monel metal seats and stems.

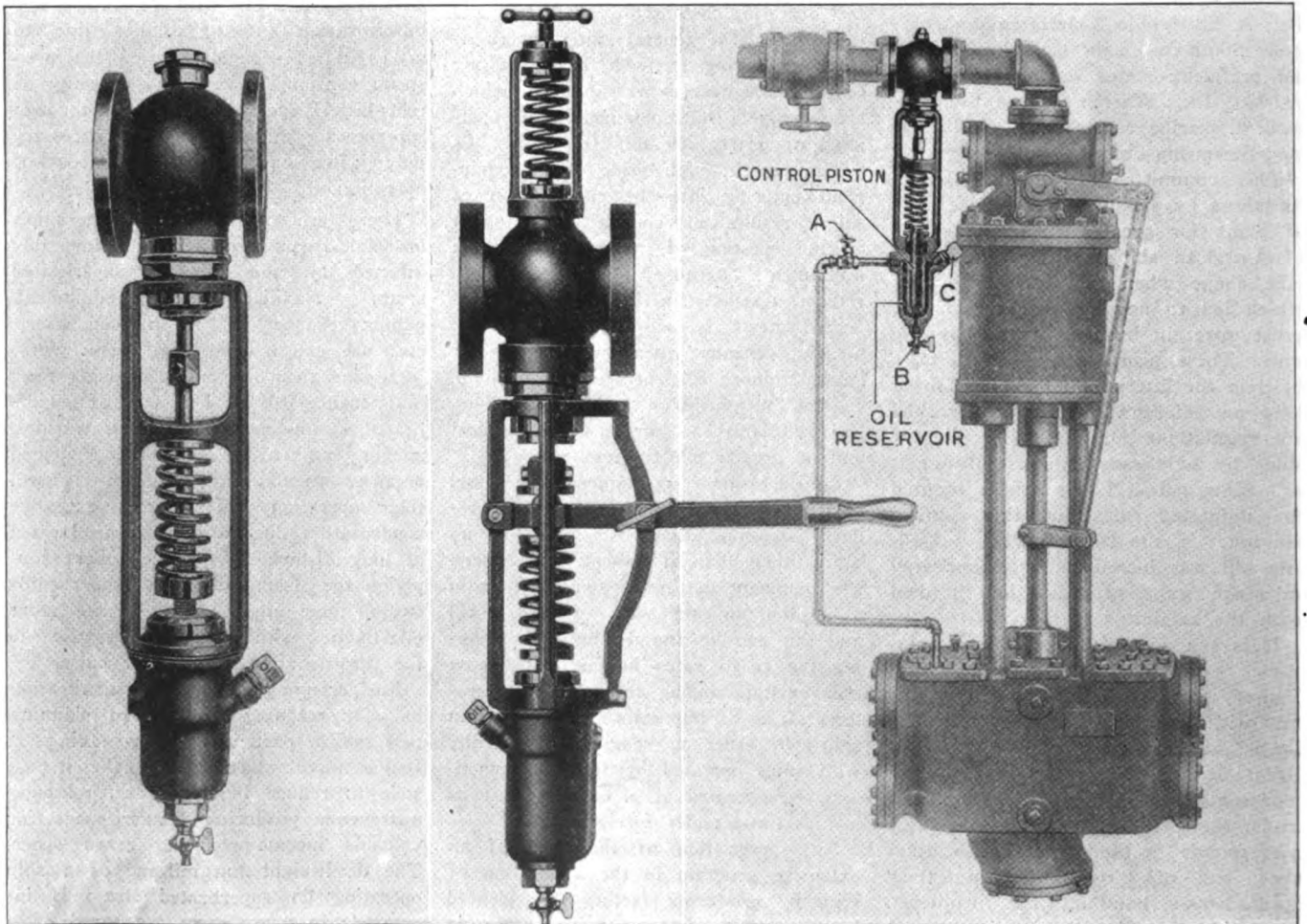
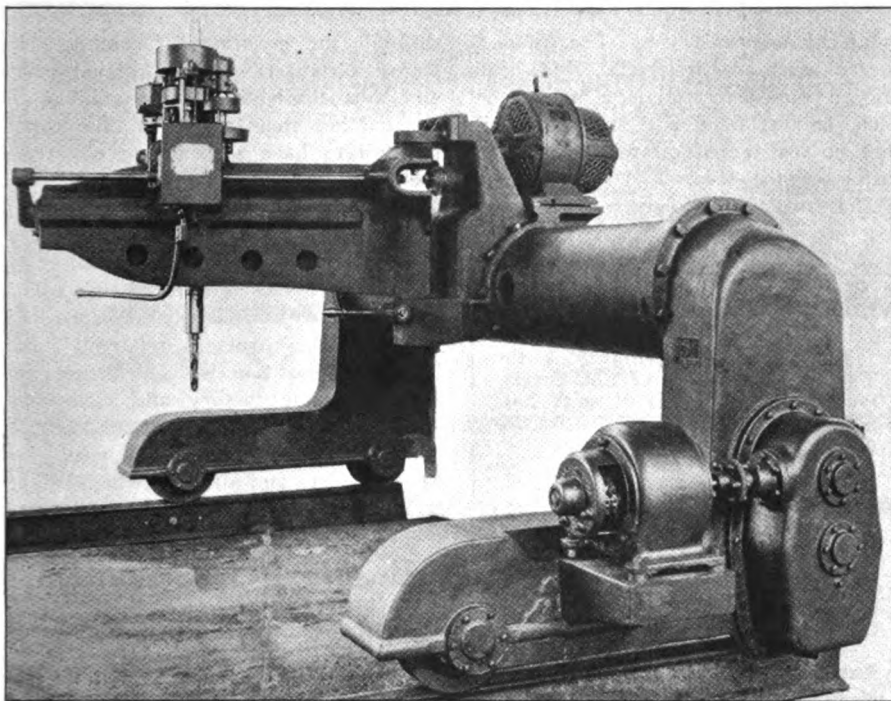


FIG. 1—GOVERNOR FOR FIXED PRESSURES. FIG. 2—GOVERNOR FOR VARYING PRESSURES SHOWING EMERGENCY CONTROL LEVER. FIG. 3—METHOD OF INSTALLING FIXED PRESSURE TYPE GOVERNOR



PLATES TO BE DRILLED ARE PLACED UNDER THE MACHINE WHICH IS TRAVERSED ON A TRACK

Late Marine Patents

Copies of any one of these patents can be obtained by forwarding 25 cents in stamps to Siggers and Siggers, patent attorneys, National Union building, Washington, and mentioning MARINE REVIEW.

1375907 Propeller, T. L. Helsaback, Brandford, Fla.

1376055 Mark buoy for seaways, M. Vitrack, Paris, France.

1376105 Submarine destroyer, Carl J. Lindquist, New York, assignor of one-half to Paul C. Hayes, Toledo, O.

1376170 Mechanical control of sails, M. H. Churchill Shann, Wodonga, Victoria, Australia.

Special Machine Drills Holes in Plates

A gantry drill press designed especially for drilling holes in plates used in the manufacture of tank, gondola or other types of steel cars as well as boilers and ships, recently has been built by William K. Stamets, Pittsburgh. As shown in the accompanying illustration, the machine is mounted on a track, the gage of which is wide enough to allow the drill to straddle the plate. Traversing of the drill on the track is accomplished by means of a motor and an adjustable controller. The drilling head is mounted on the radial arm, the latter swinging on its support on the cross beam.

Only one radial arm and drilling head is shown on the machine in the illustration, however, two, three or four arms and heads can be employed as readily. Two arms can be used on each side of the beam, or if the span is increased, a larger number than four radial arms can be used. More than one drilling head may be mount-

ed on each radial arm if desired. Operating power for the drill is supplied by the motor mounted on the beam, the electrically controlled changes in speed combined with the mechanical changes of the drill head permitting a

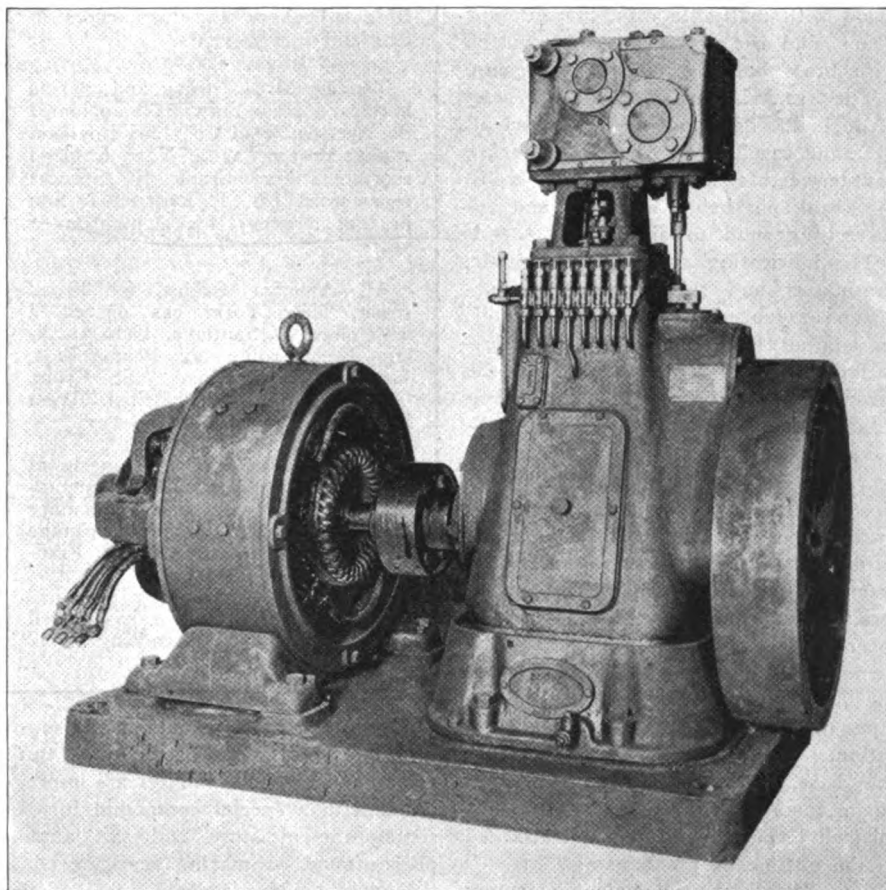
wide range of speeds. Because of insufficient demand for a drill of this type and the widely varying requirements met in practice, the machine is not built as standard.

Engine Generator Set

Especially adapted for lighting and power on shipboard is a Westinghouse-Sturtevant marine lighting set recently placed on the market. These outfits are designed to have reliability, light weight, compactness and economy of operation. Both the engine and generator making up these sets embody the results of considerable engineering and manufacturing experience. Automatic lubrication, elimination of vibration, low piston speed, sparkless commutation, and good voltage regulation are features developed in the design.

The frame is made of oil and dust proof and provided with large openings having cast iron covers in such a position as to give ready access to all parts subject to wear. In the top of the frame is cast an oil reservoir for the lubricating system.

An ample distance piece separates the cylinder and frame in which are enclosed a watershed partition and stuffing box. The watershed partition prevents the water from the cylinder leaking onto the frame and the coil in



LIGHT WEIGHT ENGINE GENERATOR SET FOR LIGHTING AND POWER SUPPLY ON SHIPBOARD

the frame from being carried into the cylinder.

The cylinder is iron, cast in one piece with the valve chest. Both are thoroughly insulated with nonheat conducting material and covered with a lagging of planished steel. The cylinder is equipped with relief valves of large diameter, which may be adjusted to open at any desired pressure. These guard against damage due to water coming over with the steam.

The valve is of the piston type and operates in a renewable bushing, which forms the valve ports. The valve is connected by means of the valve stem, slide eccentric rod and eccentric strap to the eccentric attached directly to the governor. All pins and rods are open-hearth steel and the bearing pins are hardened and ground.

The engine is equipped with an inertia governor. This governor is placed in a heavy flywheel and is capable of close regulation keeping the variation between no load and full load as low as 1.5 per cent.

The piston is cast iron cored for lightness and fitted with cast iron snap packing rings. It is pressed to a taper fit on the piston rod, and is further secured by a nut pinned to the rod. Both the connecting rod and the piston rod are open-hearth forged steel, each in a single forging. The crank pin end of the connecting rod is provided with malleable iron, marine type boxes, and the crosshead end is fitted with brass boxes of the same design.

The crankshaft is open-hearth steel made in a single forging, machined all over and carefully fitted with balancing counterweights secured to the webs, the crank pin being hardened and accurately ground to size.

The lubricating system is automatic, continuous and self-contained, requiring no independent tank or reservoir. In engines having gravity type lubrication, the oil is pumped from the reservoir in the base by a chain driven rotary pump which is entirely submerged in the oil, to the upper reservoir cast in the top of the frame. From here it flows by gravity through brass pipes to the various bearing surfaces requiring oil, then back to the reservoir in the base where it is strained and pumped again. Where a forced feed system of lubrication is furnished, the submerged pump forces the oil under pressure through brass pipes direct to all parts requiring lubrication. The oil then drains back to the base, where it is strained and again forced through the system. An oil well level gage is supplied, attached to the outside of the base.

The Westinghouse type generators forming part of these sets are especial-

ly constructed to meet the requirements of marine service. The frame is forged open-hearth steel. The bearing on the generator is a solid steel shell, babbitt lined and so constructed that no leakage of oil will occur with listing of the ship.

The armature coils are so constructed that no cross overs on edge occur.

Business Changes

The New York office of the Theo. A. Crane's Sons Co., Brooklyn, has been moved to suite 1303 in the Cunard building, 25 Broadway.

Ship brokering offices have been established at 78 Broad street, New York, by Lee M. Carolin, formerly vice president and general manager of the Tracey Steamship Co., New York.

As an exporter of coal, J. H. Lawrence has engaged in business at 82 Broad street, New York.

Offices of the Allied Forwarding & Shipping Co. have been moved to the International Commerce building, Water, Moore and Front streets, New York.

Branch offices have been established at 39 Linden street, Leicester, and at 12 Telegraph Chambers, Bradford, England, by Thomas Meadows & Co., Ltd., foreign freight brokers and forwarders in England for 86 years.

Topping Bros., heavy and marine hardware, New York, have appointed the Spencer Reed Co., 1265 Boylston street, Boston, as a New England representative. Frank S. Spencer represented Jos. T. Ryerson & Son in that territory for a number of years.

All America Cables, 89 Broad street, New York, has opened a new office in Santiago, Cuba, making direct route to Porto Rico, Jamaica, St. Thomas, St. Croix, Gaudeloupe and the British West Indies.

Y. Takakuwa & Co., formerly at 1041 Mills building, 220 Montgomery street, San Francisco, announce their removal to 310-11 Exchange block, 369 Pine street, San Francisco.

The Atlantic Fruit Co. has moved its offices from 61 Broadway to 17 Battery Place, New York.

thus eliminating a prominent cause of armature insulation breakdown. Both armature and field windings are impregnated with a special compound for resisting the moisture and salt atmosphere found in marine service.

One of the fundamental ideas of the design is the open, well ventilated con-

struction. The air can circulate freely through the generator, coming in thorough contact with all internal parts and thus eliminating the possibility of internal hot spots which in time could not fail to have a damaging effect on the insulation.

Sparkless commutation results from the application of commutating poles and consequently the wear of commutator and brushes is reduced to a minimum. This is especially so since the speed of these sets is relatively low. The brush position is fixed before the set leaves the factory and never requires any adjustment.

Noncorrosive material is used for brush holders and all parts which might be affected by moisture.

Business Opportunities

The Robbins Machine Co., Portland, Oreg., has been incorporated by G. F. Robbins and others, with \$50,000 authorized capitalization.

The manufacture and sale of blow torches, plumbers' furnaces, etc., is the purpose of the Shields Sales Co., 215 North Michigan avenue, Chicago, which recently was chartered with \$20,000 authorized capitalization by Brooke Anderson, Anson C. Morgan, and Samuel S. Shields.

The Pioneer Electrical Supply Co., Cleveland, has been incorporated with \$10,000 authorized capitalization by Morris Berick and Joseph Posner.

The Sterling Brass Mfg. Co., 4612 St. Clair avenue, Cleveland, plans construction of a reinforced concrete foundry and machine shop containing 31,000 square feet and costing \$100,000. Allen Sogg, Hippodrome building, is the architect.

The Interlake Engineering Co., Cuyahoga river and Jefferson avenue bridge, Cleveland, has bought land with 295 feet frontage on the river for use in connection with its ship-building plant.

The United States engineer's office, Federal building, Wheeling, W. Va., will receive until July 27 bids for two double 12-room lock houses for two government dams in the Wheeling district.

The St. Clair Foundry Corp., Belleville, Ill., has been incorporated by Richard D. Wiechart and Frank C. Wiechart with \$100,000 authorized capitalization.

The Nitro Foundry Co., Nitro, W. Va., with \$50,000 authorized capitalization, has been incorporated by M. S. Aldrich, Ralph Matthews, W. A. O'Neill and others, all of Charleston, W. Va.

New Trade Publications

STEAM TABLES—The Wheeler Condenser & Engineering Co., Carteret, N. J., announces the publication of the 1921 edition of "Steam Tables for Condenser Work." This is the sixth edition. The tables are in handbook form, pocket size. The properties of saturated steam are tabulated from 29.8-inch vacuum to atmospheric pressure in increments of tenths of an inch referred to a 30-inch barometer. The values were calculated for this book by Professor Marks. Above atmospheric pressure the increments are in pounds gage. The book explains how measurements are made by means of the mercury column and barometer, and gives constants and tables for making corrections. Corrections for the thermal expansion of mercury, for the relative expansion of mercury and brass scale, and other corrections are included.